

THE SCALE OF
THIS MODEL IS
 $\frac{1}{4}$ ACTUAL SIZE
OR
1" = 4"

Revell
Easy-to-assemble
Authentic Kit

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LITHO IN U.S.A.

ASSEMBLY MANUAL FOR YOUR CHRYSLER CORPORATION SLANT SIX ENGINE

IMPORTANT!!

PLEASE READ THIS BEFORE PROCEEDING WITH THE ASSEMBLY.

If you follow these suggestions, you will be rewarded with the most authentic, working scale model of an actual internal combustion engine ever engineered, anywhere.

1. The patterns used for making the components of your Chrysler Corporation Slant Six engine were the actual components from the real engine. **TOLERANCES OF ALL PARTS ARE VERY CRITICAL** and you should carefully remove all excess plastic from individual pieces where necessary.
2. Before assembling mating parts or assemblies, carefully check the fits to be sure that all required trimming or sanding has been accomplished.
3. Lubrication of moving parts is extremely important. You should lubricate wherever the instruction booklet indicates. We suggest you use petroleum "Vaseline" for a lubricant. **DO NOT** use machine oil as this will swell the plastic and cause the parts to bind.
4. This kit is molded in four colors; cast iron gray, red, silver and black. The colors of the parts indicated in this instruction booklet correspond to the molded colors and will assist you in locating the parts.
5. All parts are numbered for easy identification; or the numbers are engraved on the bar next to the part. Carefully remove each part from its bar only when that part is to be used.
6. Your completed model may be disassembled and reassembled time after time. Be sure to cement **ONLY** where it is indicated in the instructions. Although there are many ways you can assemble your model, the instructions in this booklet have been carefully and logically developed to insure your complete satisfaction with the complete model. Before proceeding read each step carefully and check the fits of all parts, to be sure you understand the instructions.
7. The disassembly and reassembly feature of this model is made possible through the use of metal screws and nuts. **DO NOT** tighten the screws more than is necessary to provide a snug fastening. Excess force will strip the threads around the self tapping screws or will loosen the nuts which you trap and cement in the plastic.
8. The components which are supplied in the four envelopes (screws, nuts, rivets, etc.) have been bulk packaged. As a result, you may have more of these items than are required for proper assembly.
9. Learn while you build. Keep in mind that **THIS IS AN ENGINEERED MODEL** that duplicates the actual engine as closely as is humanly possible. You can learn more about assembling an internal combustion engine from this model than from almost any textbook.
10. Since this kit is molded of Styrene Plastic, use only **Revell Type C Cement**. This is actually a welding agent. Use sparingly. Excess cement will penetrate and soften the plastic, thereby requiring a long drying time. **Do not let the cement touch your eyes, clothing or furniture.**
11. **MOST IMPORTANT!!** Years and years of automotive engineering are behind the development of the Slant Six engine. A few extra moments of your time should be spent in this assembly. **WORK SLOWLY!! WORK DELIBERATELY!!** Care, caution, deliberation and patience will reward you with a flawlessly functioning model of one of engineering's most exciting products, The Slant Six Engine.
12. It is not necessary to paint your model to have an attractive engine. If you wish your model to appear as the picture on the box, paint all parts with **Revell Paint Set Colors**.
13. Directions for applying Decals are on the back of the Decal sheet.

THE (3) FOLLOWING REPLACEMENT PARTS MAY BE PURCHASED BY SENDING CHECK OR MONEY ORDER IN AMOUNT SHOWN TO REVELL, INC. DEPT. X, VENICE, CALIFORNIA

BULBS, PER SET OF (6) \$1.00 ... MOTOR \$.75 ... FAN BELT \$.10

AS A REVELL MODEL BUILDER YOU ARE ELIGIBLE TO BECOME A MEMBER OF THE INTERNATIONAL MASTER MODELER CLUB. YOUR APPLICATION BLANK HAS BEEN PACKED WITH THIS KIT. IF, FOR ANY REASON, IT HAS BEEN LOST, YOU MAY OBTAIN ANOTHER IN ANY REVELL KIT BEARING THE MASTER MODELER EMBLEM, OR BY WRITING TO:

Master Modeler Club Headquarters
Revell Incorporated 4223 Glencoe Ave.
Venice, California

1

CYLINDER BLOCK -
REAR SECTION2
(GRAY)

HEX NUT

1

(GRAY)

3

NUT RETAINER - FOR END BEARING

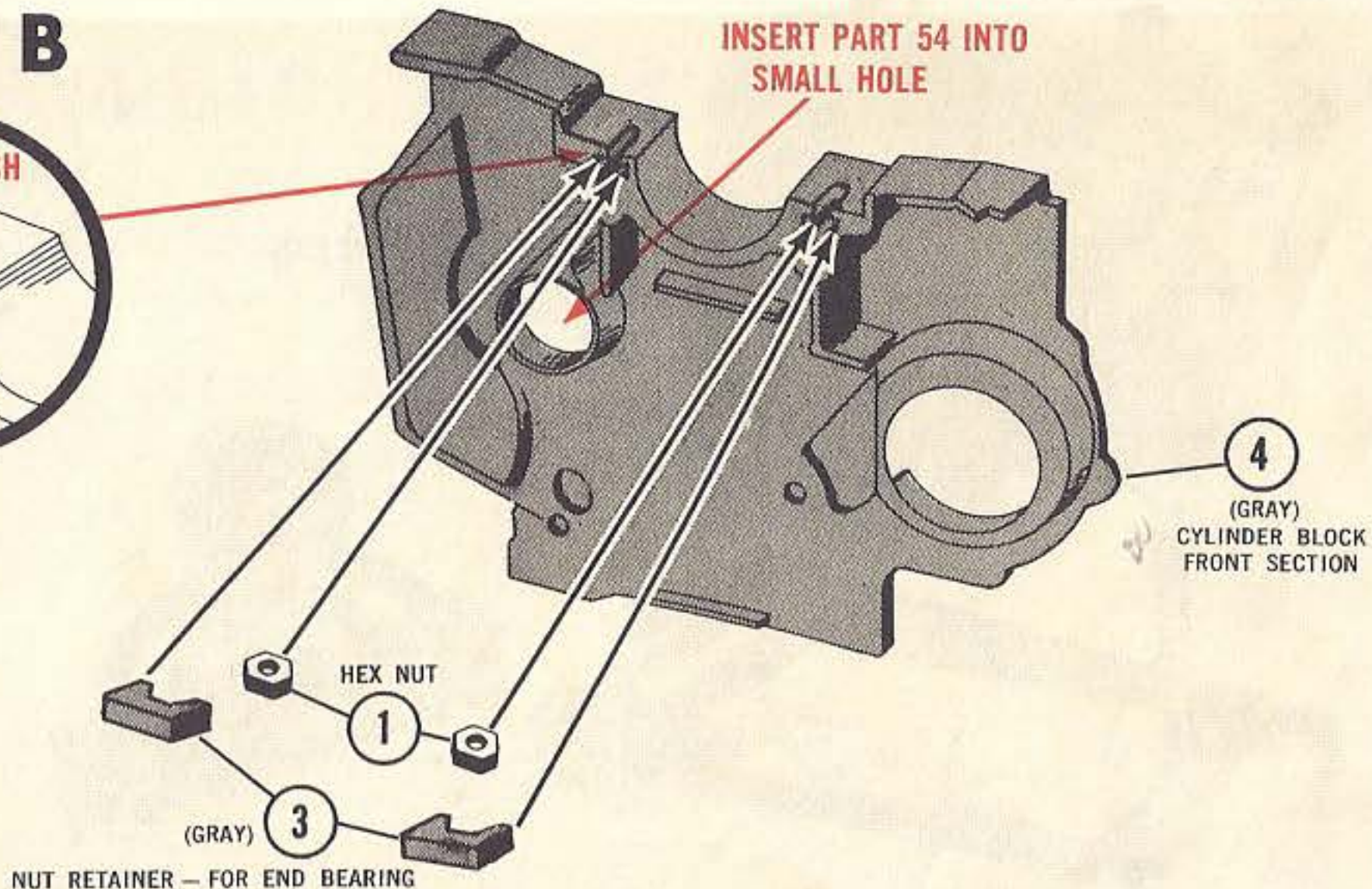
INSERT PART 53
THROUGH SMALL HOLE

REAR END BLOCK ASSEMBLY

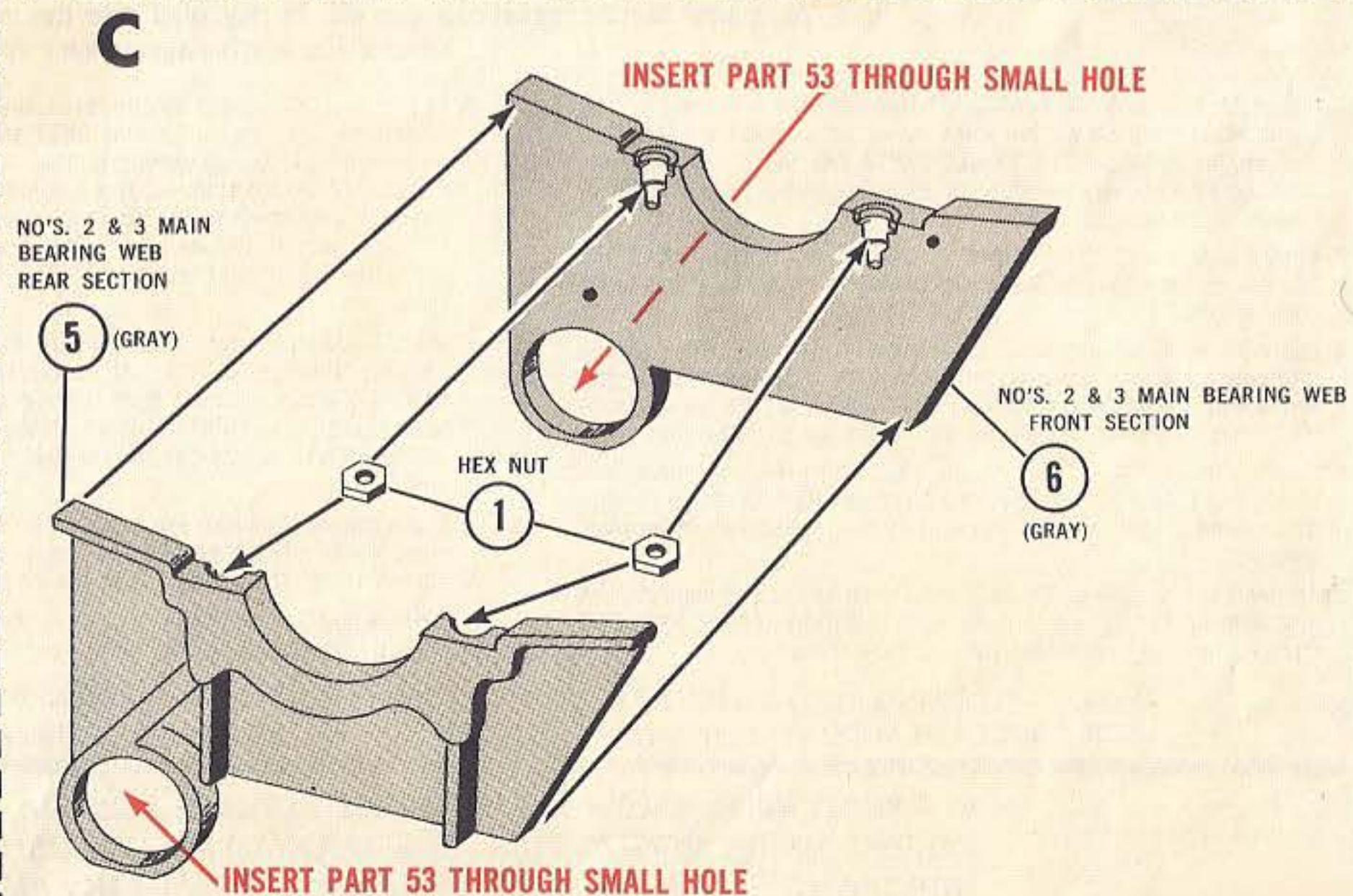
INSERT REAR CAMSHAFT BEARING, PART 53 (BLACK) THROUGH SMALL HOLES IN ASSEMBLIES A AND C AS SHOWN, TO MAKE SURE IT WILL PASS THROUGH THE HOLES. IF IT DOES NOT, CLEAN EXCESS CEMENT AND PLASTIC OUT OF HOLES.

INSERT THE HUB OF CAMSHAFT GEAR, PART 54 (SILVER), INTO SMALL HOLE IN ASSEMBLY 1B AS SHOWN, TO MAKE SURE IT TURNS EASILY.

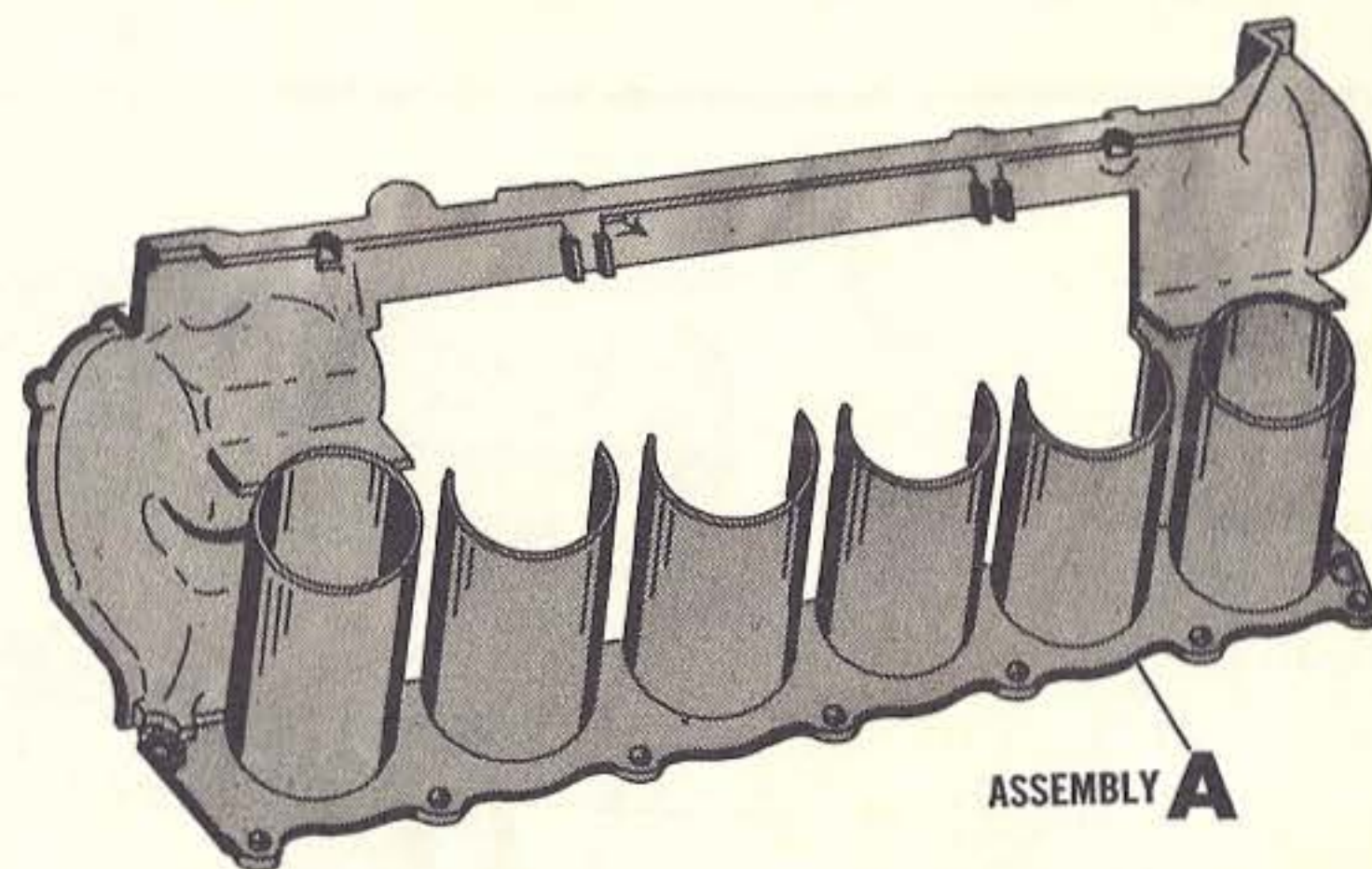
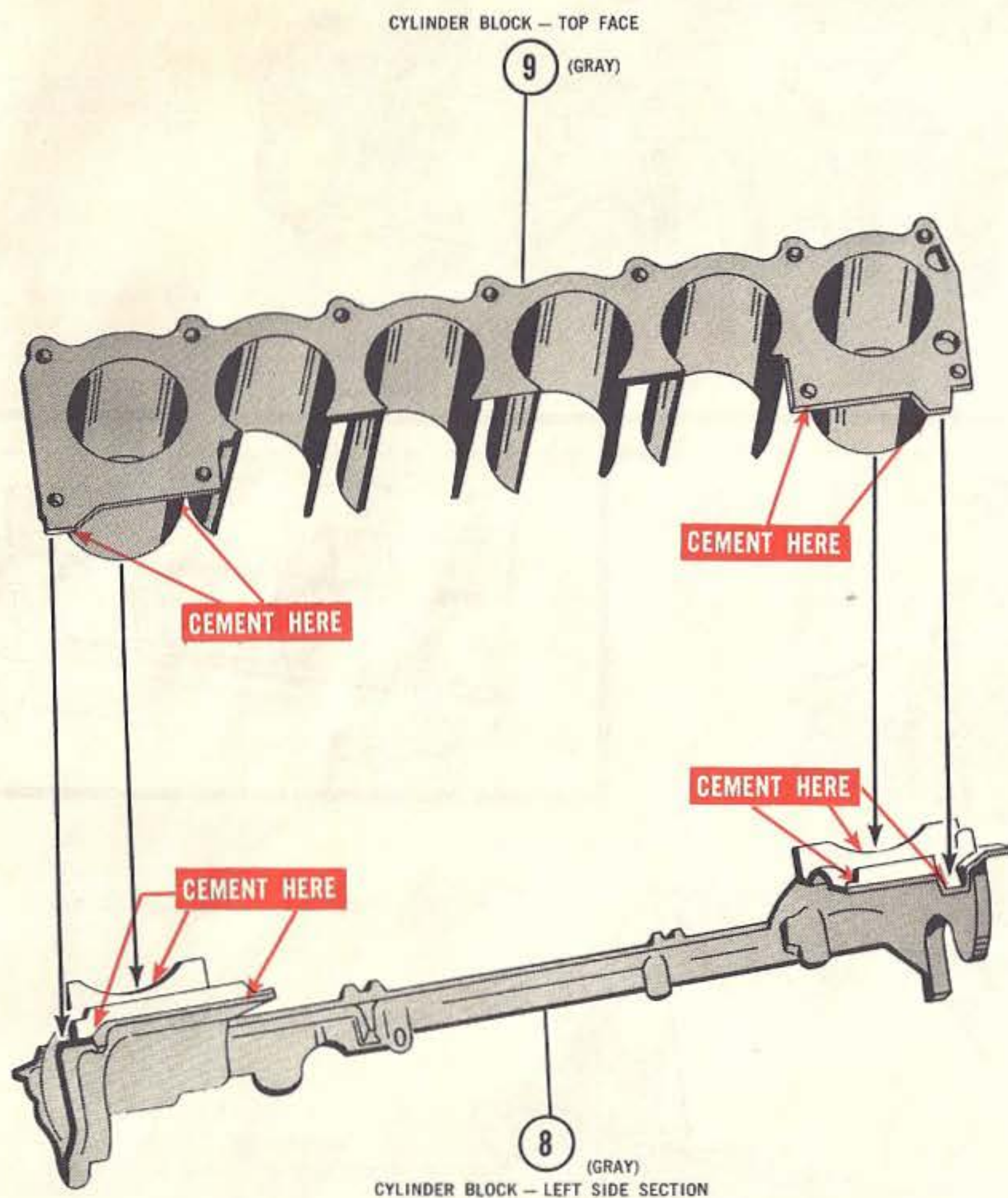
SEE DRAWING A. Cement (2) Parts 1 into Part 2. **CAUTION: DO NOT ALLOW CEMENT TO RUN INTO THREADS IN NUTS.** Next, cement (2) Parts 3 into Part 2. **NOTE:** Parts 3 must be **FLUSH** with Parts 2 and 4, as shown in Small Drawing. Allow Hex Nuts to dry thoroughly. SEE DRAWING B. Cement (2) Parts 1 into Part 4, then cement (2) remaining Parts 3 into Part 4, as shown. Set aside to dry thoroughly. SEE DRAWING C. Cement (2) Parts 1 into (1) Part 5, then cement Part 5 to (1) Part 6. **MAKE (2) SETS.** Use clothes pins to clamp Parts 5 and 6 until dry.



FRONT END BLOCK ASSEMBLY



BLOCK SUPPORT ASSEMBLY



CYLINDERS AND LEFT BLOCK ASSEMBLY

SEE DRAWING A. Apply cement to Parts 8 and 9, as shown. Press Parts 8 and 9 together and hold with clothes pins until dry. SEE DRAWING B. This view shows the proper assembly of Parts 8 and 9. When Parts are assembled properly, set aside to dry.

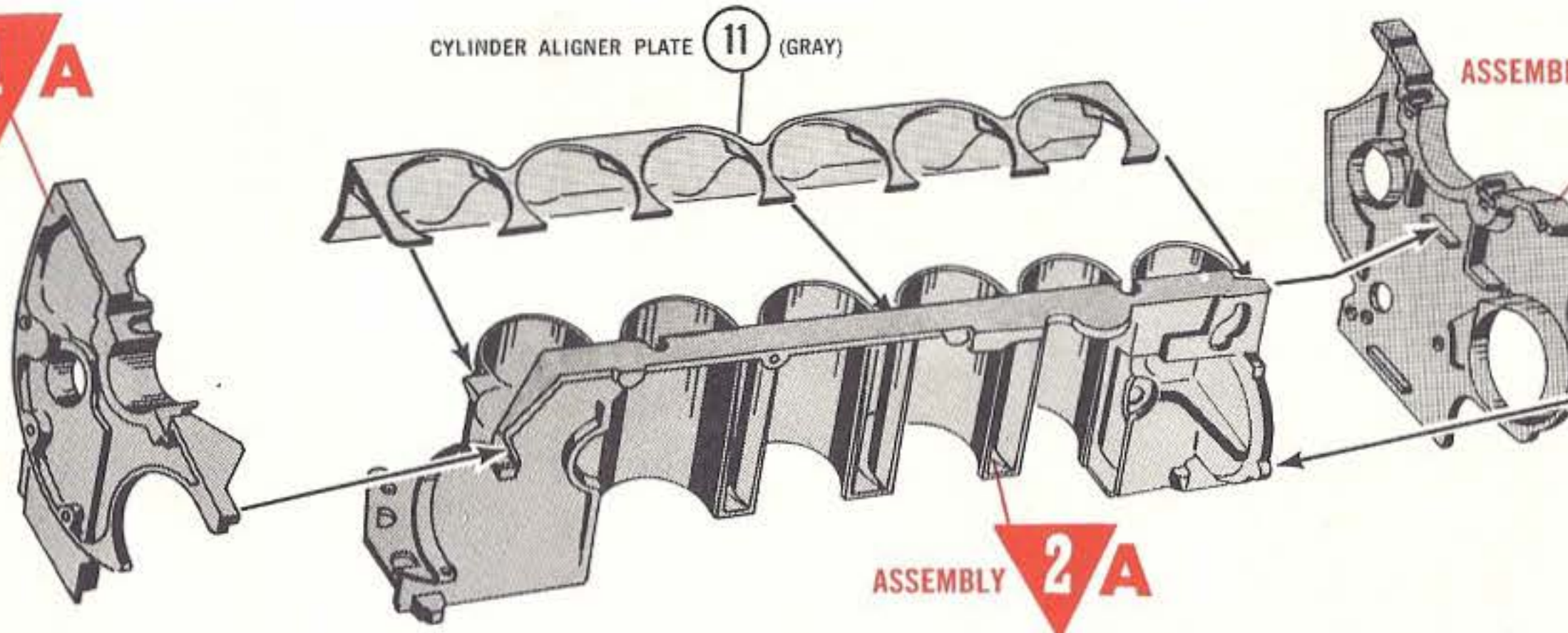
3

ASSEMBLY

1A

CYLINDER ALIGNER AND BLOCK ENDS ASSEMBLY

Locate Part 11 to Assembly 2A. When positioned flush with bottom of Cylinders, apply cement to Part 11 between Cylinders. Next, cement Assembly 1A to front of Assembly 2A and Assembly 1B to rear. Use Rubber Bands to hold Parts in position until dry, then remove Rubber Bands.



4

(GRAY) 10

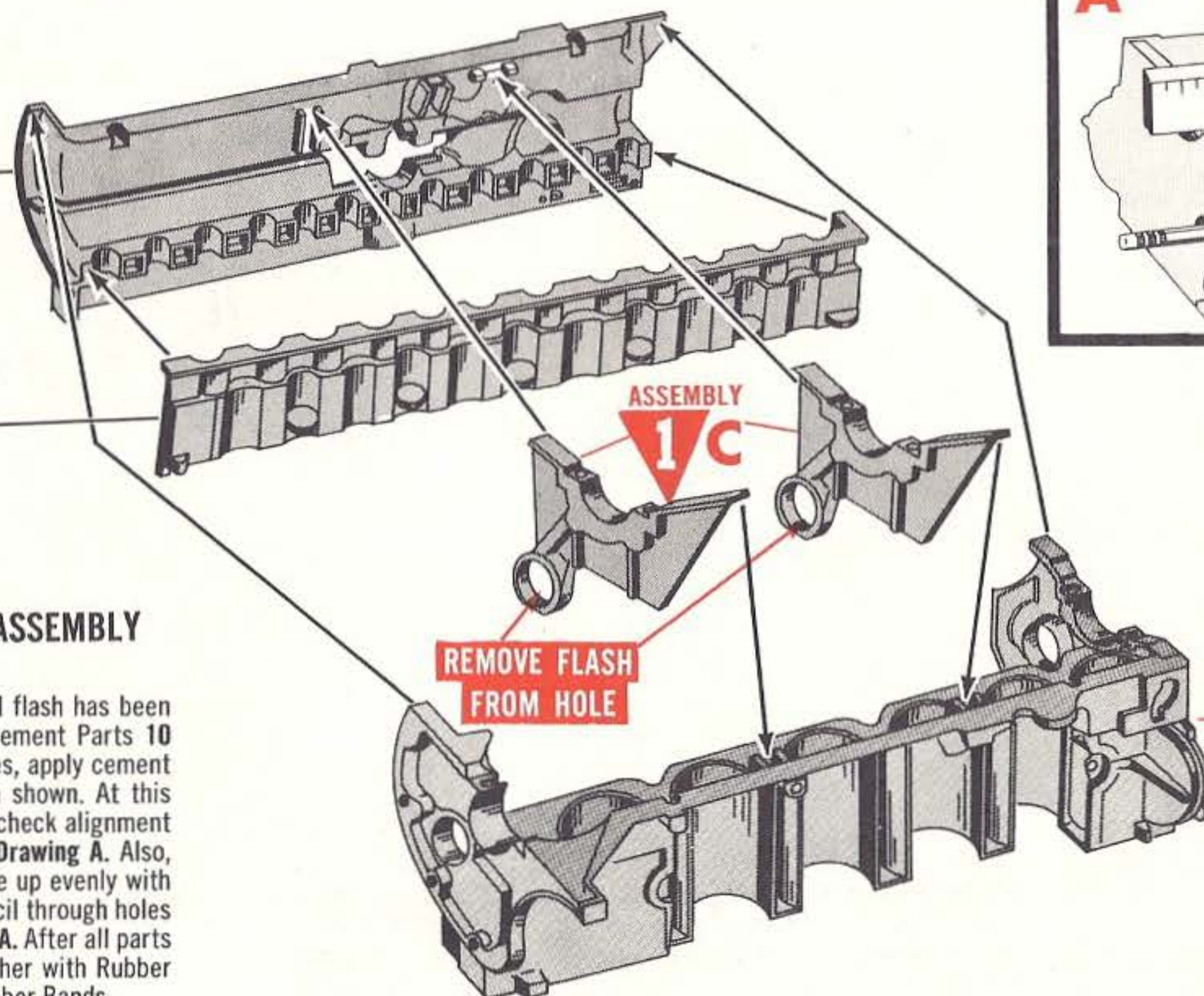
CYLINDER BLOCK — RIGHT SIDE SECTION

(GRAY) 12

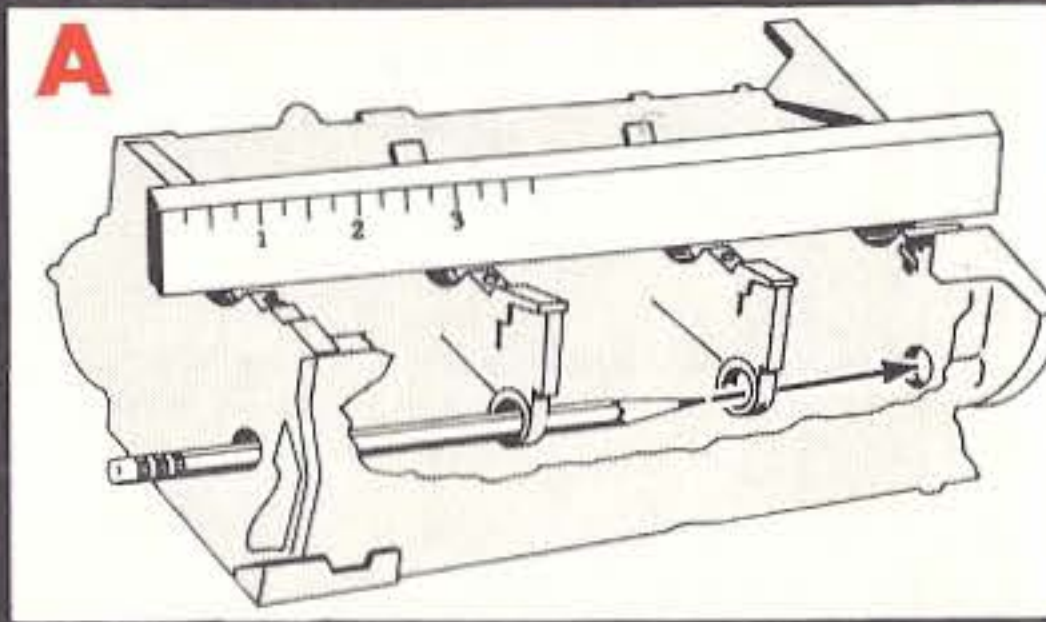
CAM FOLLOWER PLATE

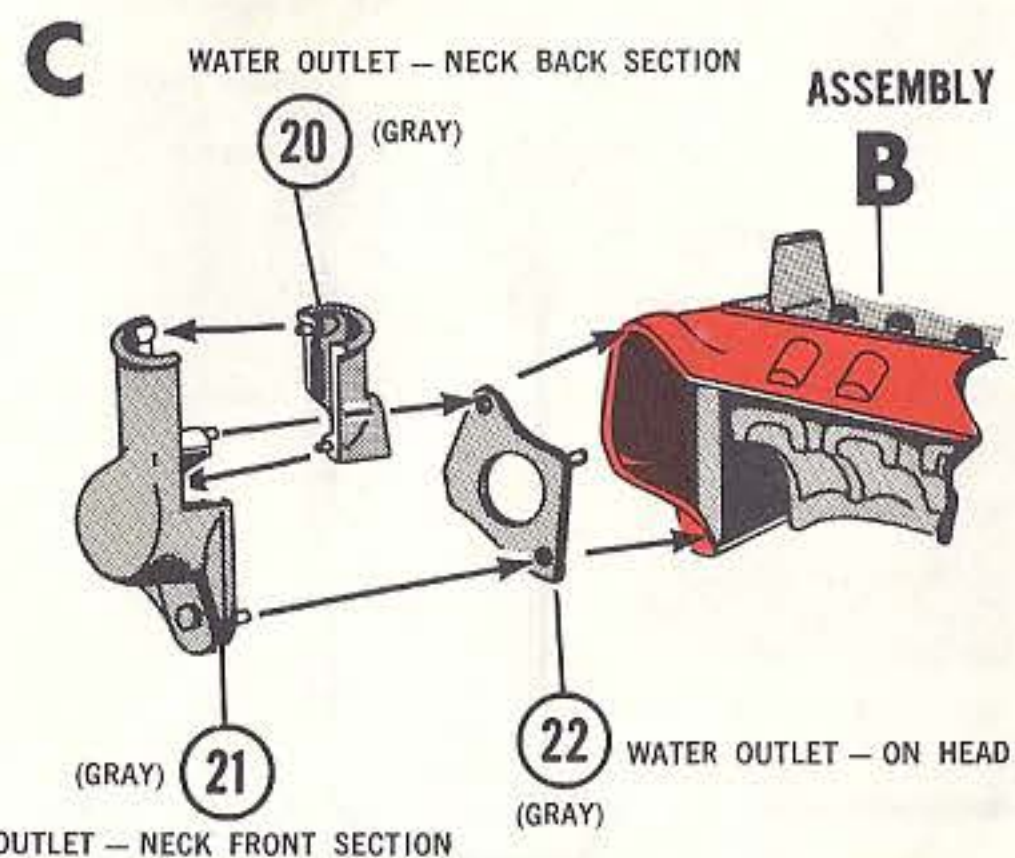
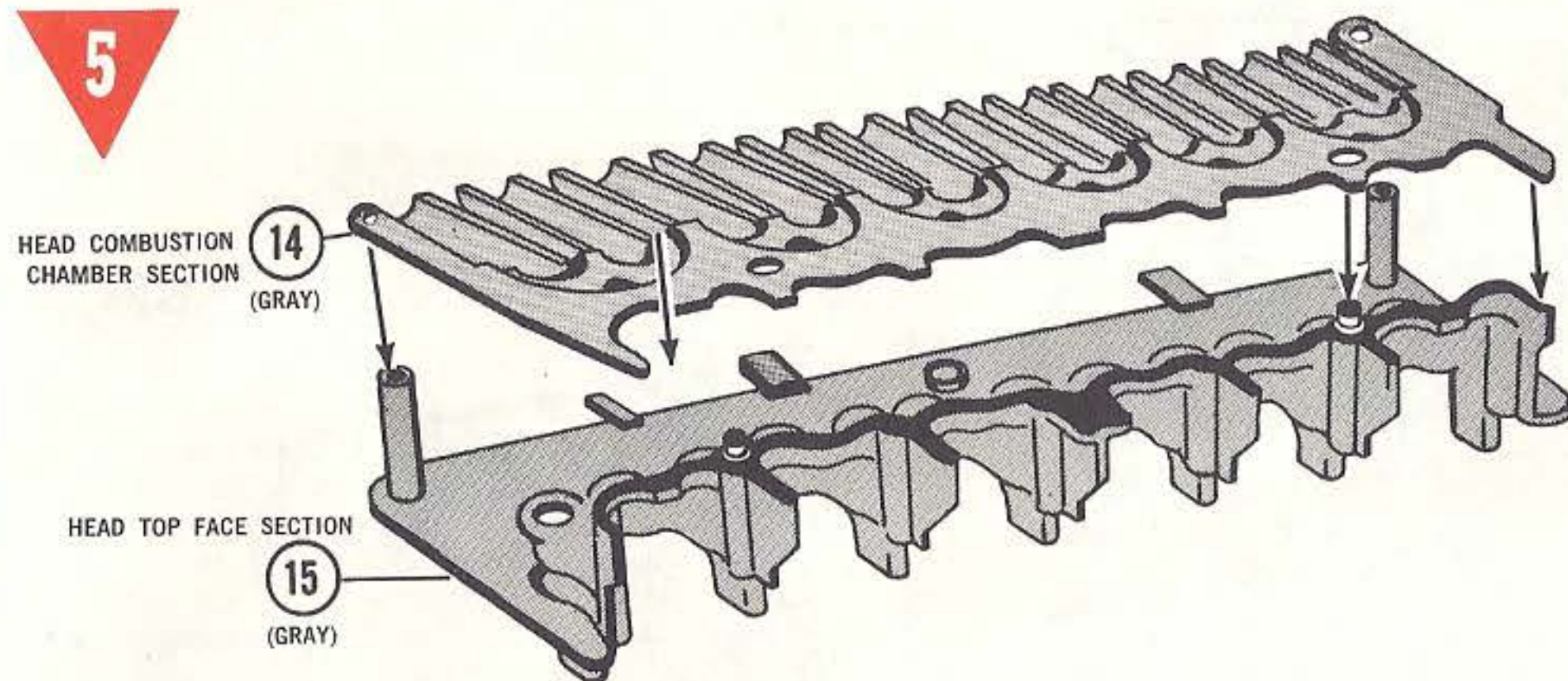
RIGHT BLOCK AND SUPPORT ASSEMBLY

Cement Part 12 to Part 10. Make sure all flash has been removed from holes in Assemblies 1C. Cement Parts 10 and 12 to Assembly 3. Before cement dries, apply cement to Assemblies 1C and snap into position shown. At this point we suggest that you use a Ruler to check alignment of all Main Bearings, as shown in Small Drawing A. Also, check that the holes in Assemblies 1C line up evenly with holes in Assembly 3, by sliding a long Pencil through holes in Assembly 3, as shown in Small Drawing A. After all parts are aligned properly, hold assembly together with Rubber Bands. When all Parts are dry, remove Rubber Bands.



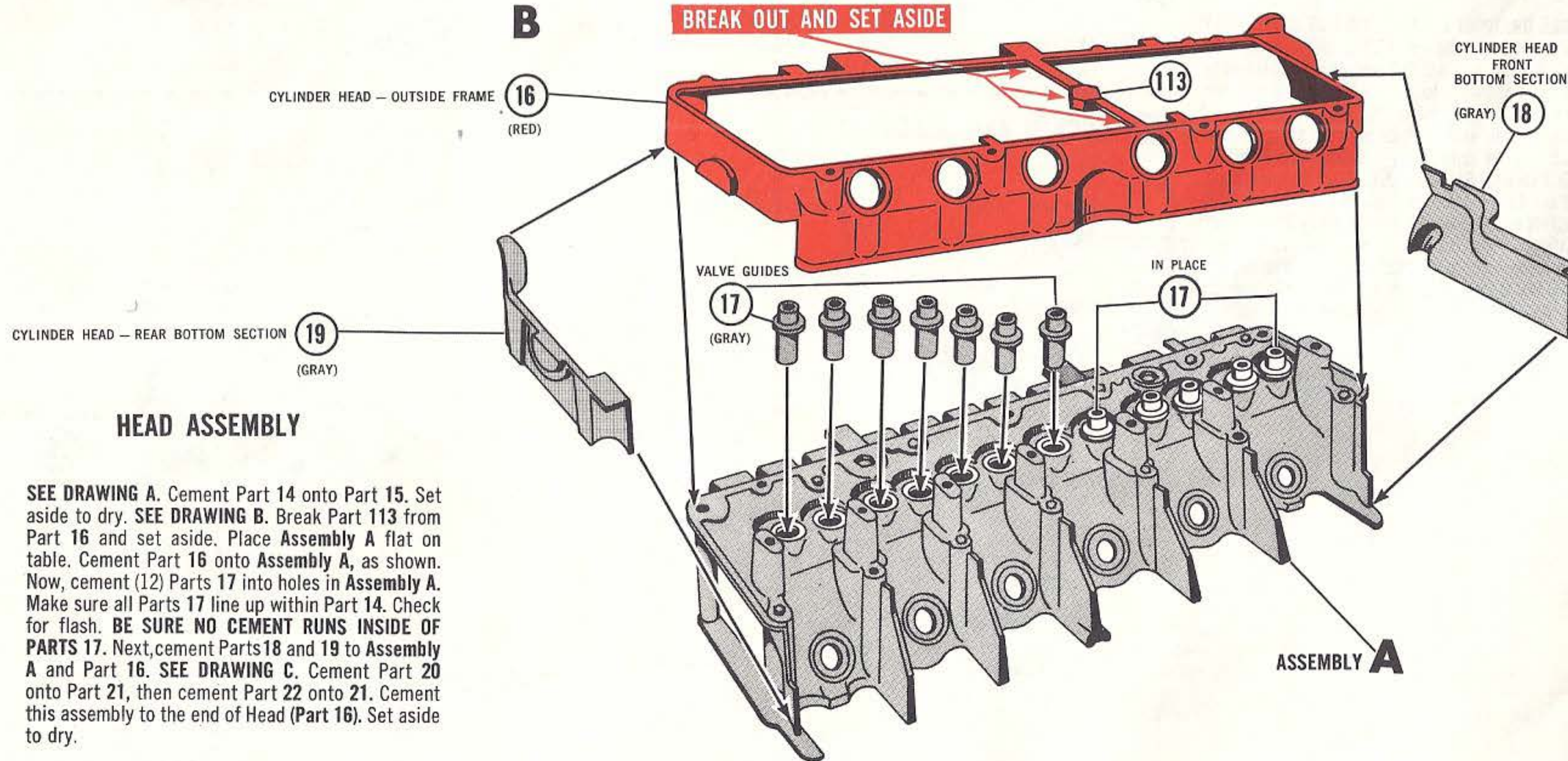
A





B

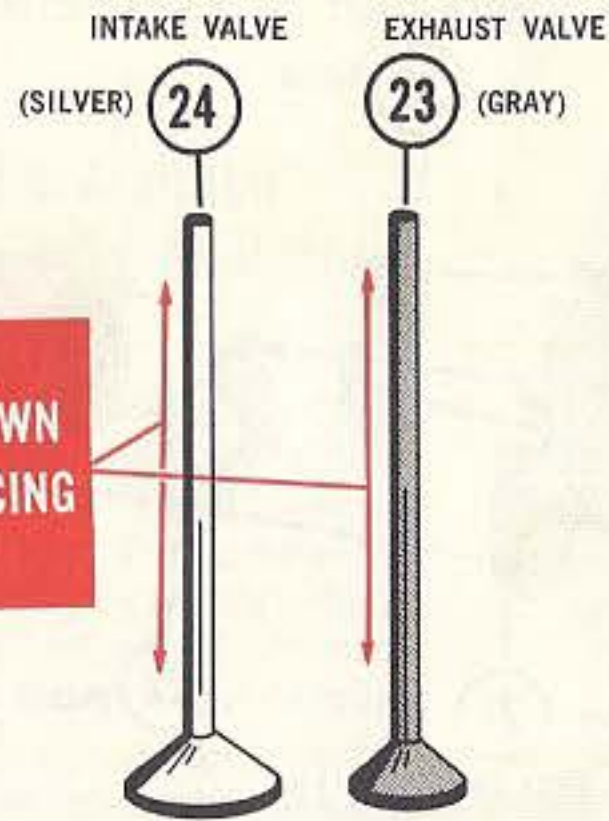
BREAK OUT AND SET ASIDE



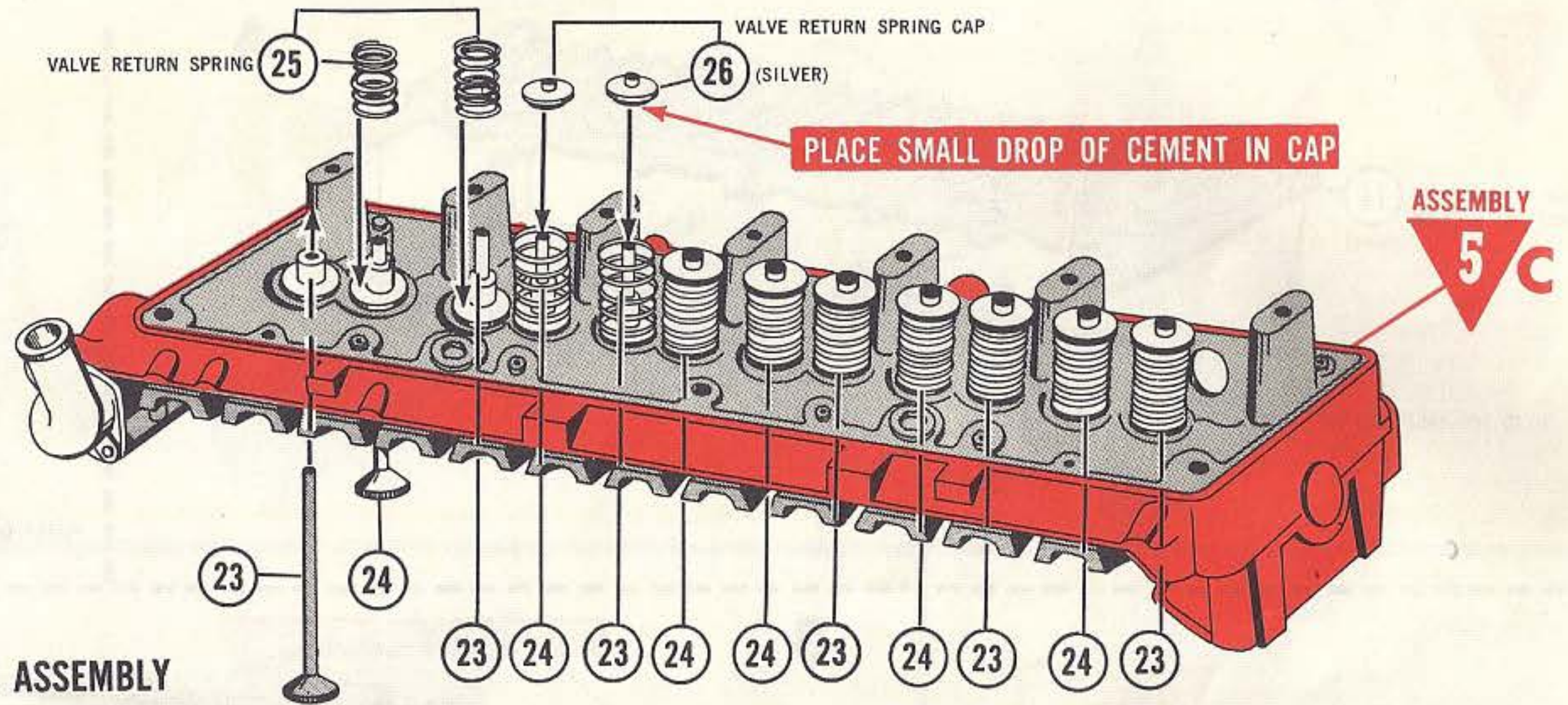
HEAD ASSEMBLY

SEE DRAWING A. Cement Part 14 onto Part 15. Set aside to dry. SEE DRAWING B. Break Part 113 from Part 16 and set aside. Place Assembly A flat on table. Cement Part 16 onto Assembly A, as shown. Now, cement (12) Parts 17 into holes in Assembly A. Make sure all Parts 17 line up within Part 14. Check for flash. **BE SURE NO CEMENT RUNS INSIDE OF PARTS 17.** Next, cement Parts 18 and 19 to Assembly A and Part 16. SEE DRAWING C. Cement Part 20 onto Part 21, then cement Part 22 onto 21. Cement this assembly to the end of Head (Part 16). Set aside to dry.

6



APPLY LUBE
IN AREA SHOWN
BEFORE PLACING
IN HEAD

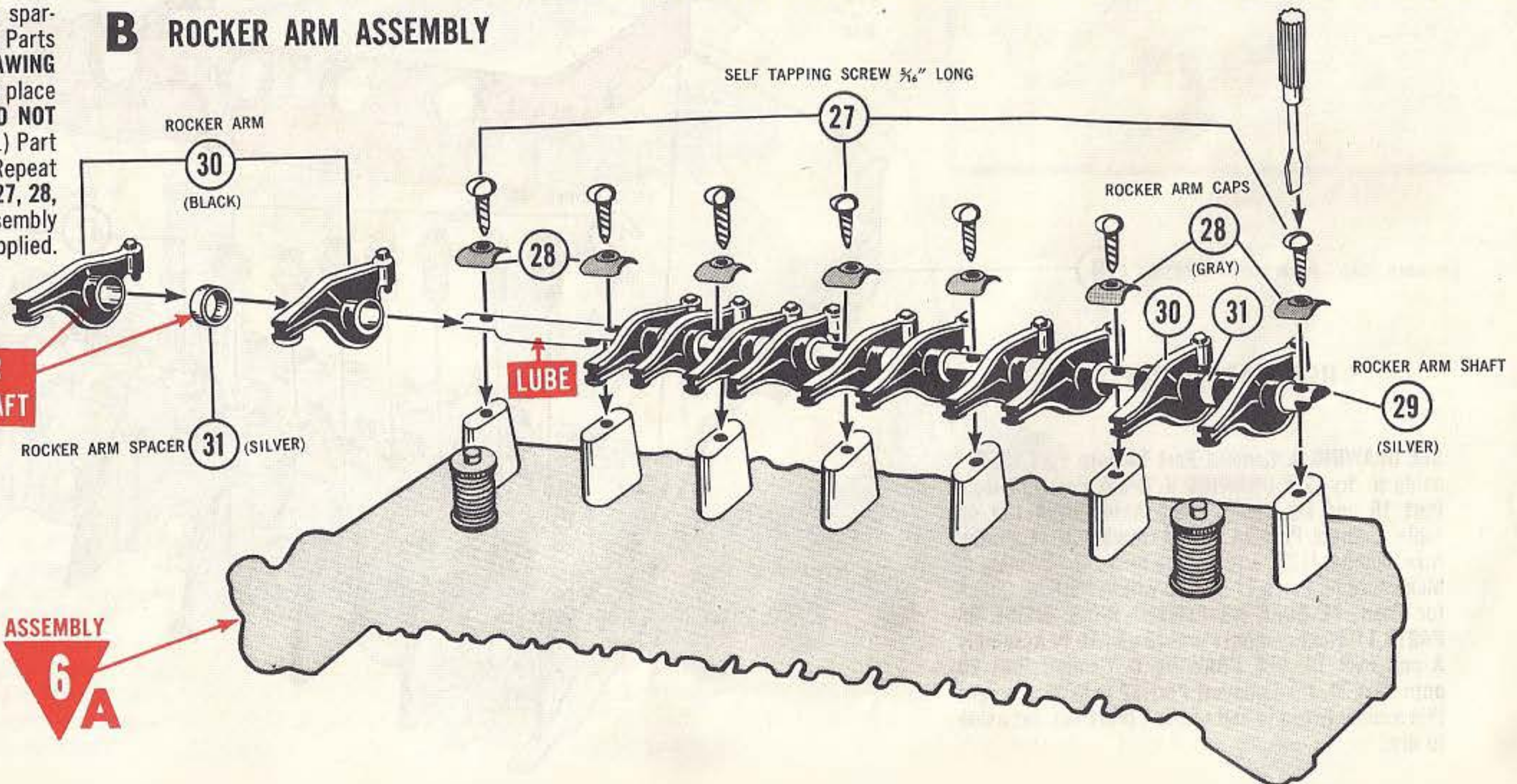


A VALVE ASSEMBLY

SEE DRAWING A. SLIDE, DO NOT CEMENT (6) Parts 23 and (6) Parts 24 into Assembly 5C, as shown. Place (12) Parts 25 onto Assembly 5C, as shown. Place a small drop of cement in hole in (12) Parts 26. Use cement sparingly. Hold each Part 26 to Valve Stems, Parts 23 and 24 until cement sets. SEE DRAWING B. Place (1) Part 27 into (1) Part 28 then place Part 27 into end of Part 29. SLIDE, DO NOT CEMENT (1) Part 30 then (1) Part 31, (1) Part 30 and Parts 27 and 28 onto Part 29. Repeat procedure onto Part 29 until all Parts 27, 28, 30 and 31 are in place. Tighten this assembly onto Assembly A with screwdriver supplied.

B ROCKER ARM ASSEMBLY

CHECK ALL PARTS FOR
FREE MOVEMENT ON SHAFT



7

CRANKSHAFT ASSEMBLY

CAUTION! This is a critical assembly and the Parts must be firmly joined together. Cement Parts 32 and 33 together. Now cement Part 34 to the rear of this assembly. Part 34 should be pushed on as far as it will go, and about 1/16" gap will exist between the ends of the Parts. Now, cement Part 35 on the front of the assembly, and it should be pushed on as far as it will go. Set aside to dry.

DRIVESHAFT
AND BEARING
(GRAY) 34

CRANKSHAFT — TOP SECTION 32

(GRAY)

33 (GRAY)

CRANKSHAFT — BOTTOM SECTION

REMOVE FLASH AT ALL BEARING AREAS

35 (SILVER)

CRANKSHAFT GEAR

8

A

PISTON SKIRT — BACK HALF 37 (SILVER)

(SILVER) 36

PISTON SKIRT — FRONT HALF

B

APPLY CEMENT
HERE ONLY

PISTON TOP SECTION 40 (SILVER)

PISTON 2ND
SPACER RING 39

(SILVER)

PISTON 1ST
SPACER RING
WITH SPRING 38

(SILVER)

ASSEMBLY A

PISTON ASSEMBLIES

C

PISTON COMPRESSION RING (RED) 42

PISTON OIL RING (GRAY) 41

ASSEMBLY B

NOTE: There are extra parts 41 provided. These parts may also be used as Part 42 if needed.

D

C ASSEMBLY

LUBE

(SILVER) 45

CONNECTING ROD
WRIST PIN

REMOVE ALL BURRS

43

CONNECTING ROD 44

(GRAY)

(CAUTION: DO NOT USE 5/16" SCREWS, PARTS 48, AS THESE WILL BE REQUIRED IN LATER STEPS.)

IN PLACE 43

MACHINE
SCREW 3/16" LONG

SEE DRAWING A. Cement Parts 36 and 37 together. MAKE (6) SETS. SEE DRAWING B. PLACE, DO NOT CEMENT (1) Part 38 and (1) Part 39 onto (1) Assembly A. Next, apply cement sparingly to inside of (1) Part 40 and press onto (1) Assembly A. MAKE (6) SETS. SEE DRAWING C. Carefully CUT, DO NOT BREAK each Part 41 and 42 from Runner Bar. Place these Parts flat on table and trim excess plastic from Parts. Now SNAP, DO NOT CEMENT (2) Parts 42 over Assembly B, as shown. Next, Snap (1) Part 41 over top of

Assembly B, as shown. Repeat this procedure for remaining (5) Pistons. SEE DRAWING D. NOTE: The holes in Parts 44 have purposely been left smaller than the screws, Parts 43, in order to keep screws from falling out. Screw (2) Parts 43 into (1) Part 44. Make sure screw heads are down flush to Part. Place (1) Part 44 into Assembly C. PRESS, DO NOT CEMENT (1) Part 45 through Piston and Connecting Rod. Repeat this procedure for remaining 5 Pistons.

9

CRANKSHAFT - PISTONS AND BLOCK ASSEMBLY

CAUTION! All joining edges of the Crankshaft must be smooth. If these edges are rough, the Crankshaft will not turn freely in your completed Model. **SEE DRAWING A.** Place (1) Assembly 8D onto Assembly 7 by attaching (1) Part 46 with (2) Parts 1 using Hex Wrench Part 170. Tighten down snug. **DO NOT STRIP WRENCH.** Check to make sure Connecting Rod spins freely on Crankshaft. Follow this procedure to attach remaining (5) Assemblies 8D. Now, remove Pistons 2, 3, 4 and 5.

SEE DRAWING B. Apply Lubrication to all areas shown. Now, carefully place Pistons 1 and 6 of Assembly A into Assembly 4. Attach (1) Part 47 to Assembly 4 with (2) Parts 48 using the Screwdriver provided. **NOTE: DO NOT TIGHTEN SCREW SNUG AT THIS TIME.** Repeat this assembly procedure for the remaining Parts 47 and 48. Cement Part 49 at location shown. **BE CAREFUL THAT NO CEMENT TOUCHES CRANKSHAFT.** Now, slide (1) Piston, Assembly 8D into (1) Cylinder, checking that Rings on Piston do not bind in Cylinder Wall. **BE SURE PISTON IS LOCATED ON CRANKSHAFT PROPERLY.** Attach (1) Part 46 onto Machine Screws in Pistons with (2) Parts 1 using Hex Wrench Part 170. Repeat this procedure for remaining (3) Pistons. Now tighten all screws and nuts down snug.

CONNECTING ROD END CAPS

(GRAY)

46

LUBE ALL ROD BEARINGS

HEX NUT

1

HEX WRENCH 170 (BLACK)

170

(BLACK)

ASSEMBLY

8

D

NO. 6 PISTON

NO. 5 PISTON

NO. 4 PISTON

NO. 3 PISTON

NO. 2 PISTON

NO. 1 PISTON

ASSEMBLY

7

A

B

CRANKSHAFT OIL SEAL

49 (GRAY)

48

47

1

MACHINE SCREW 5/8" LONG

48

LUBE ALL MAIN BEARINGS

MAIN BEARING CAP

47

(GRAY)

CONNECTING ROD END CAPS

46

(GRAY)

ASSEMBLY

A

BOTTOM OF BLOCK

LUBE

LUBE ALL CYLINDERS
BEFORE ASSEMBLING

8

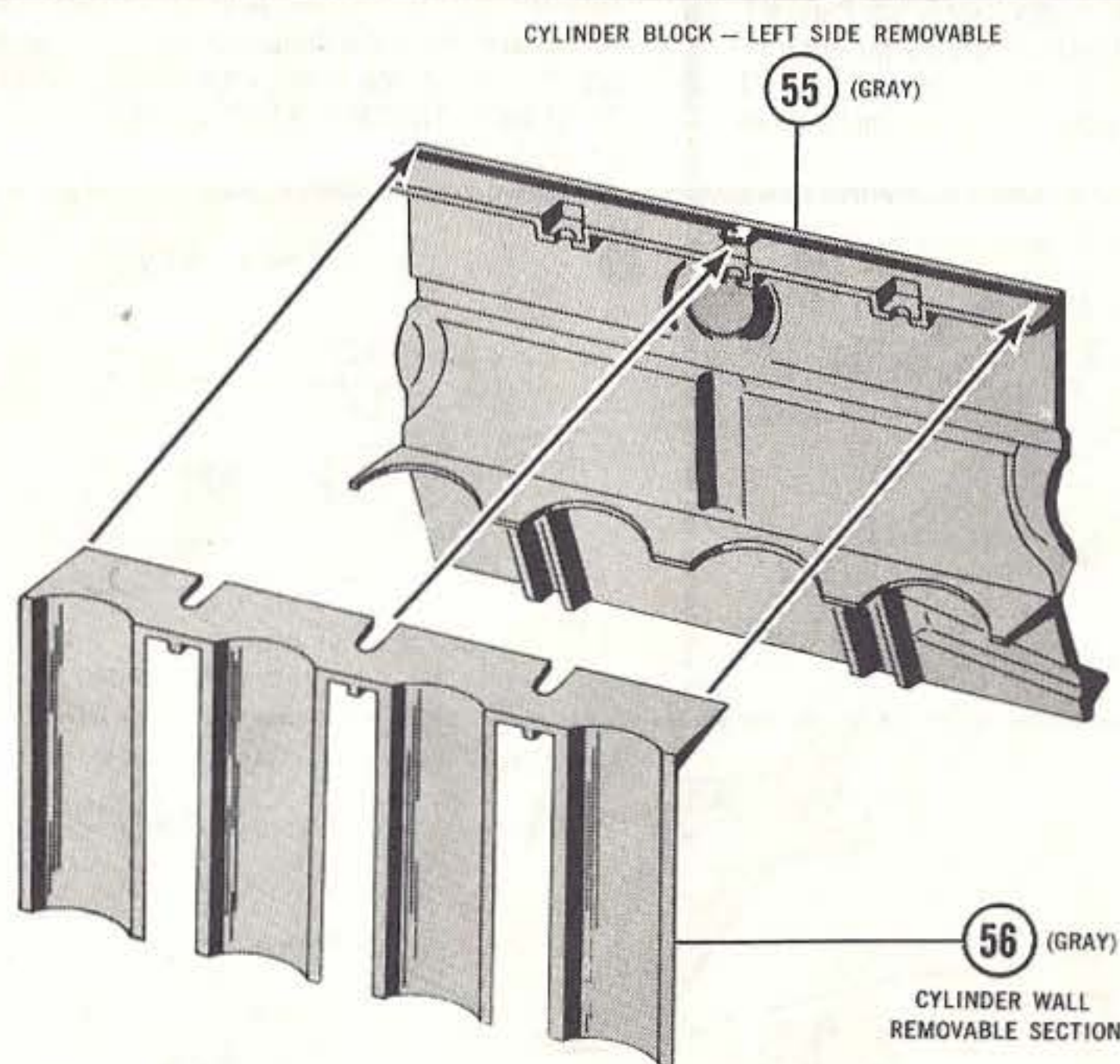
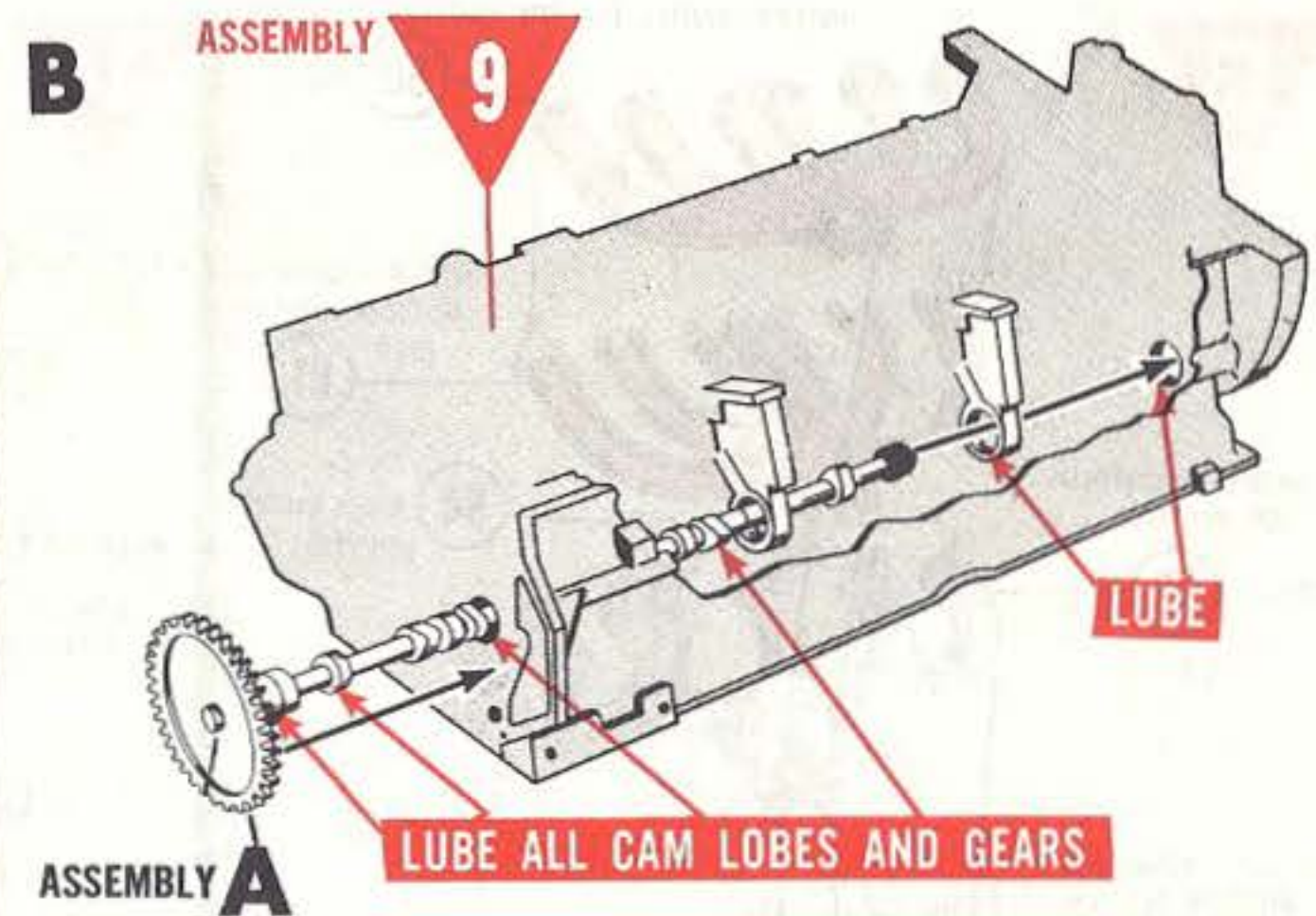
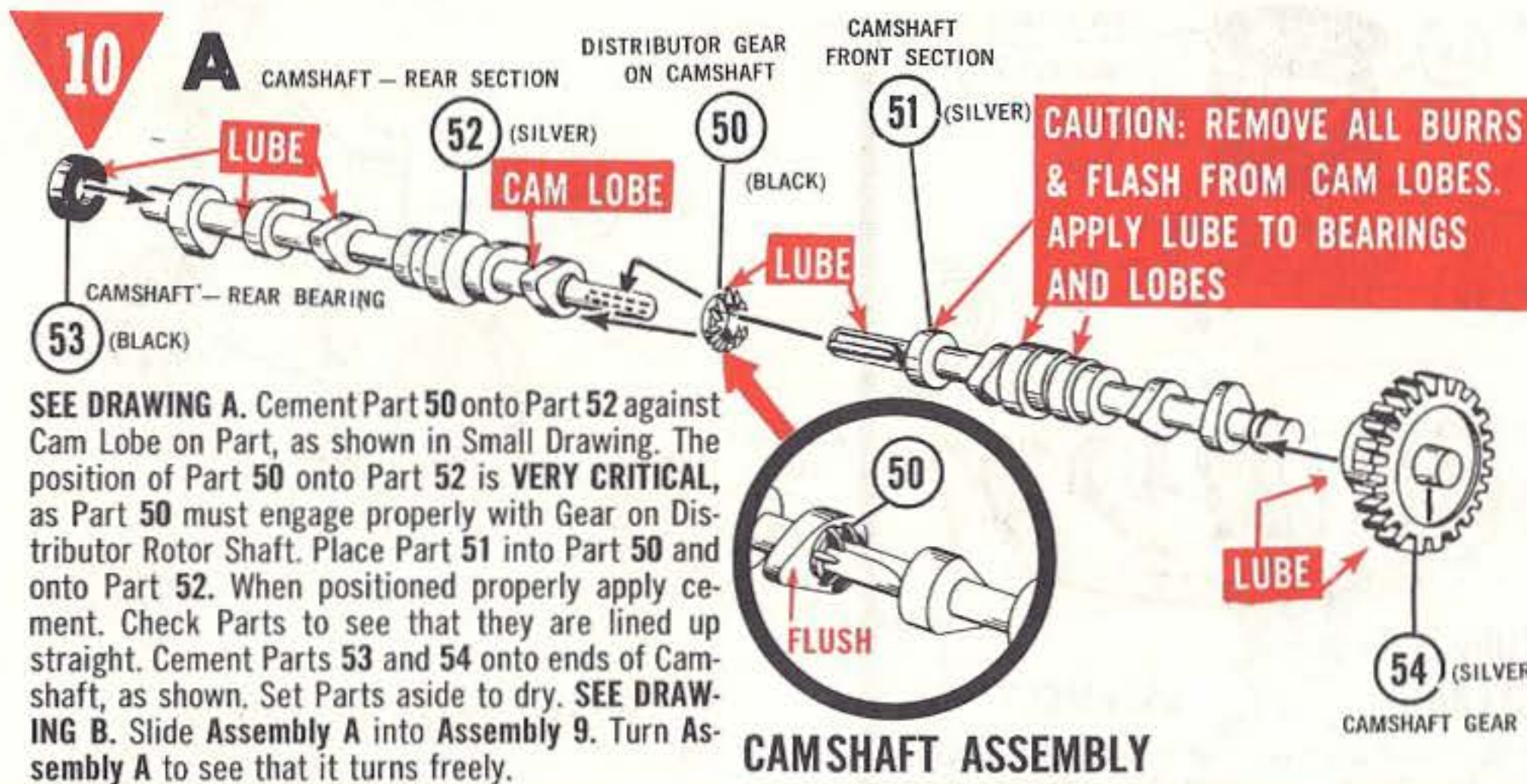
D

LUBE

TOP OF BLOCK

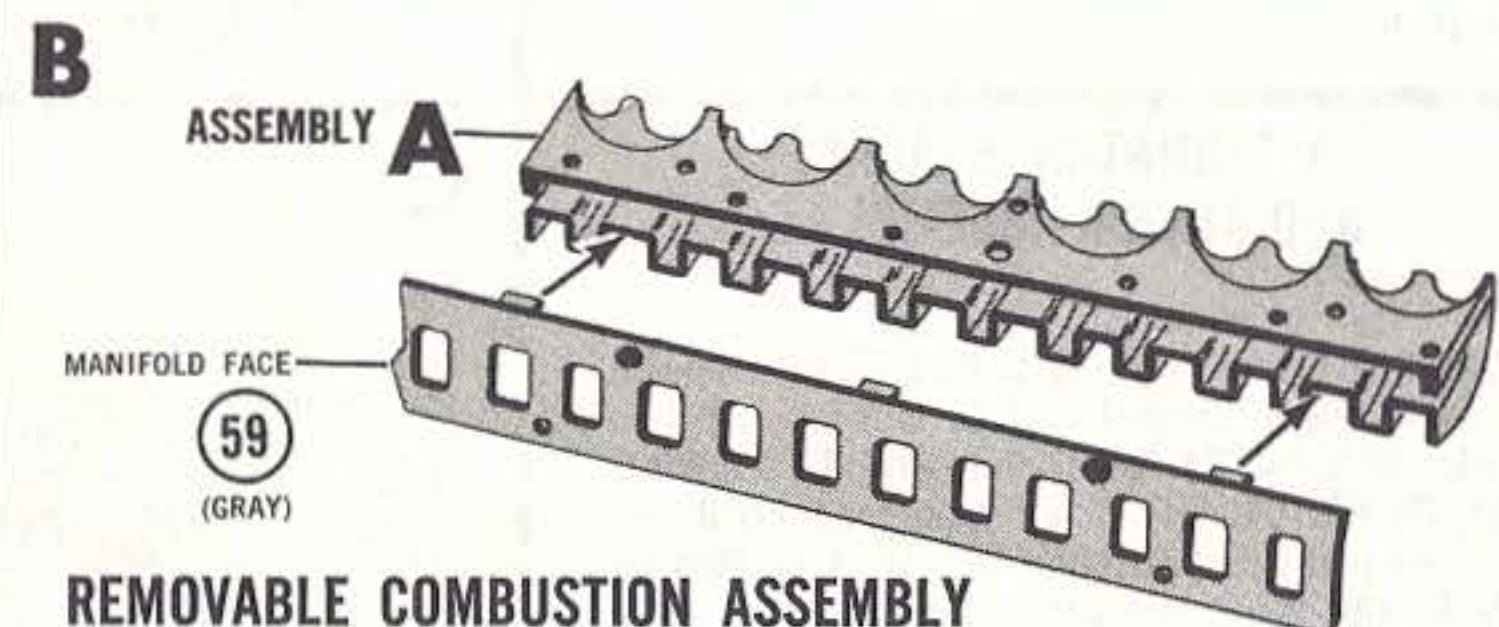
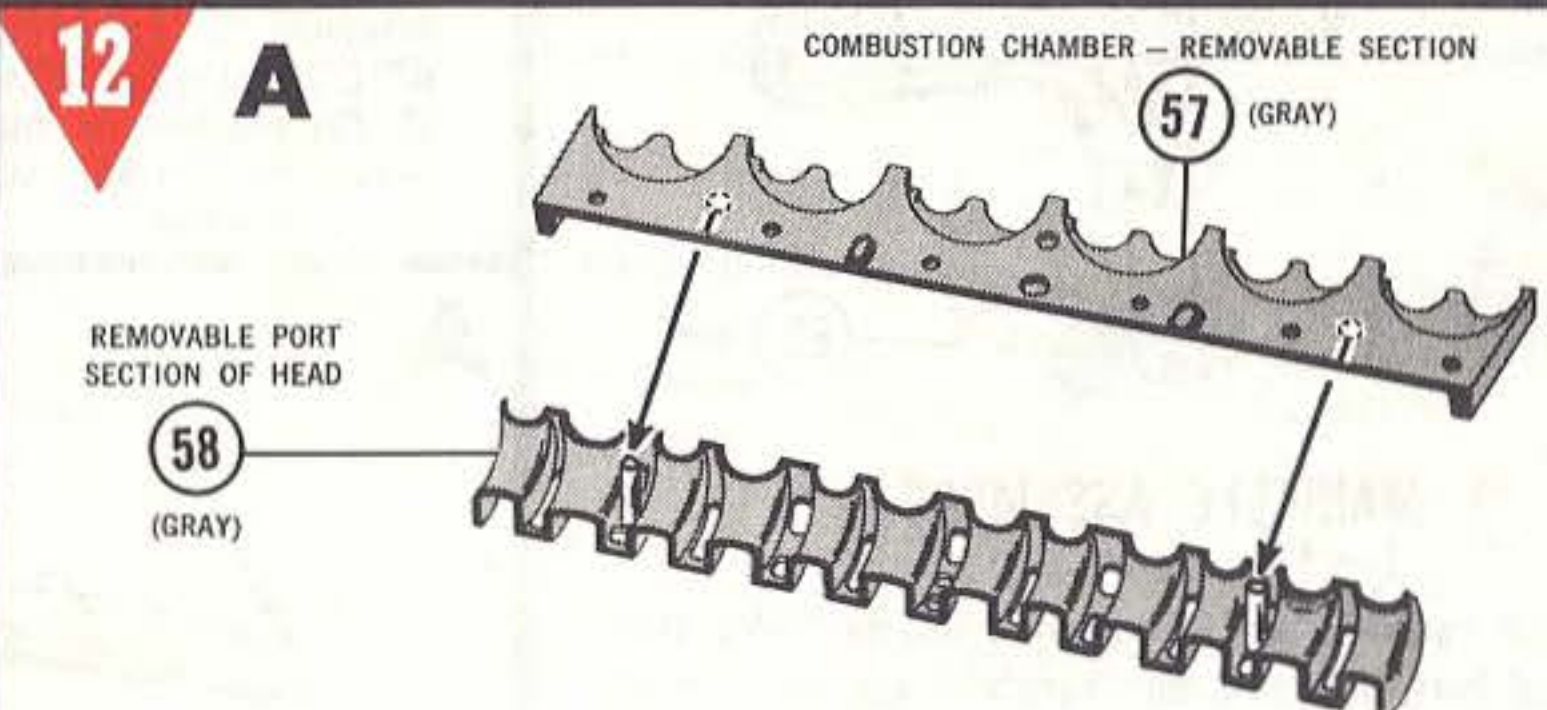
ASSEMBLY

4



REMOVABLE BLOCK ASSEMBLY

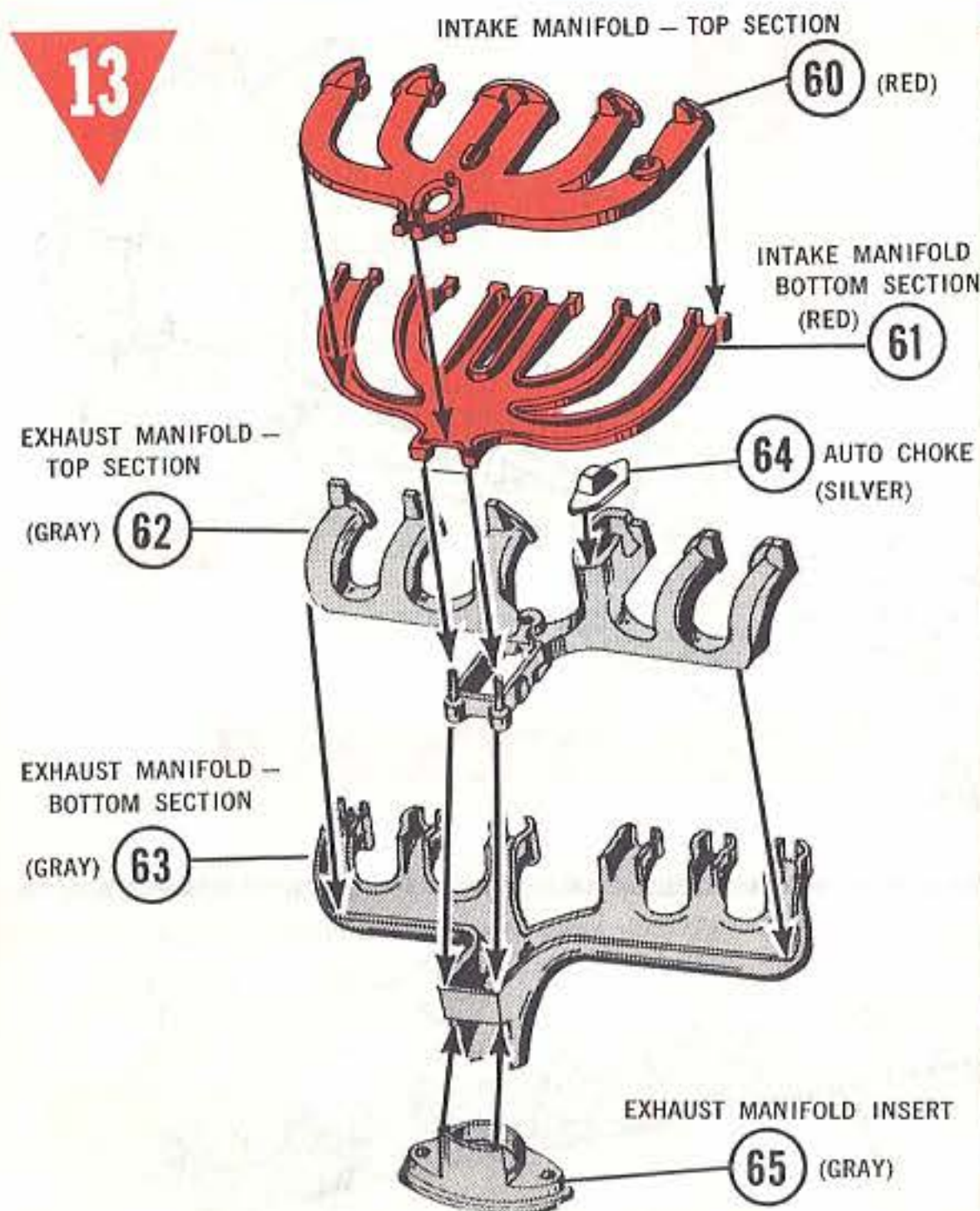
Cement Part 55 to Part 56 then set aside to dry.



REMOVABLE COMBUSTION ASSEMBLY

SEE DRAWING A. Cement Part 57 onto Part 58. SEE DRAWING B. Cement Part 59 onto Assembly A. Set aside to dry.

13



MANIFOLD ASSEMBLY

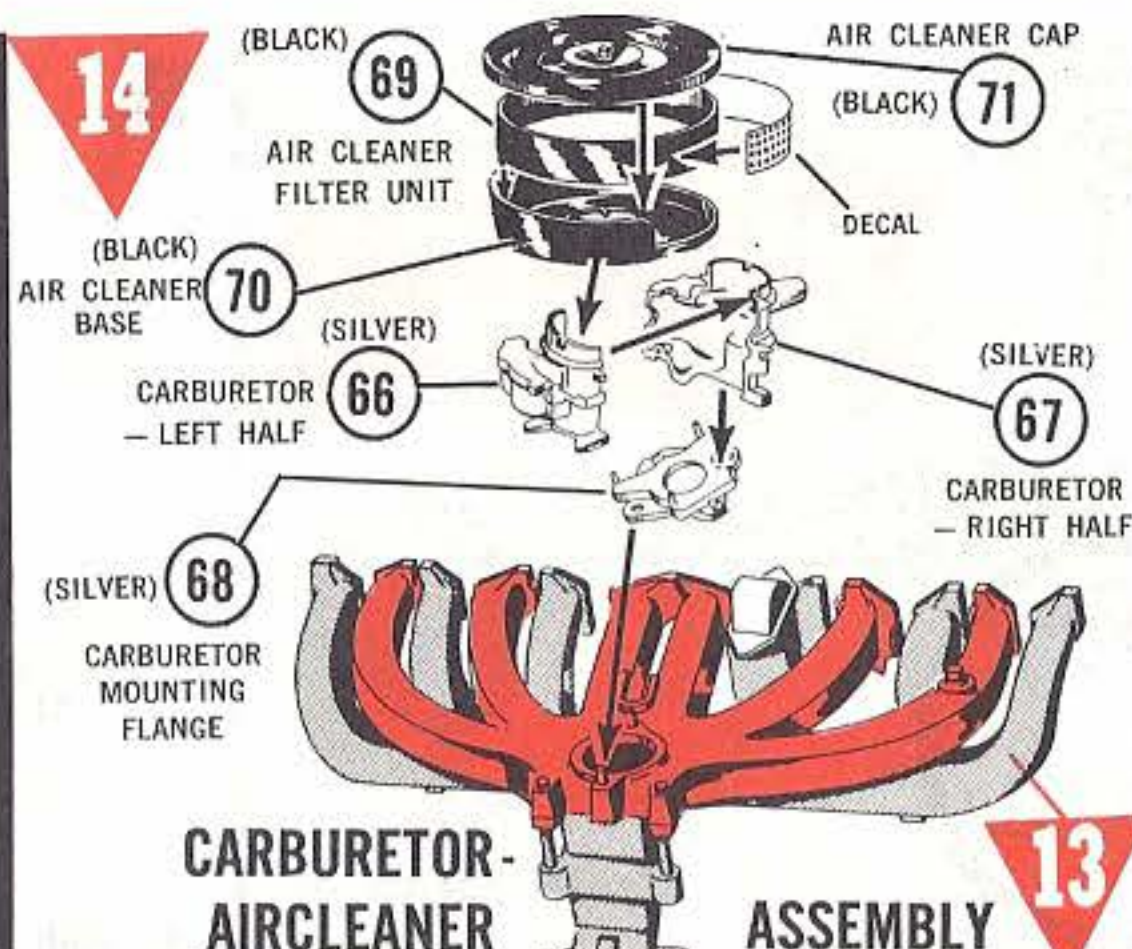
Cement Parts 60 and 61 together. Let Parts dry. Next cement Part 62 and 63 together. Now, cement Parts 60 and 61 onto completed Parts 62 and 63. Cement Part 64 onto Part 62 and cement Part 65 onto Part 63, as shown. Set aside to dry.

16

ALTERNATOR BRACKET AND ROTOR ASSEMBLIES

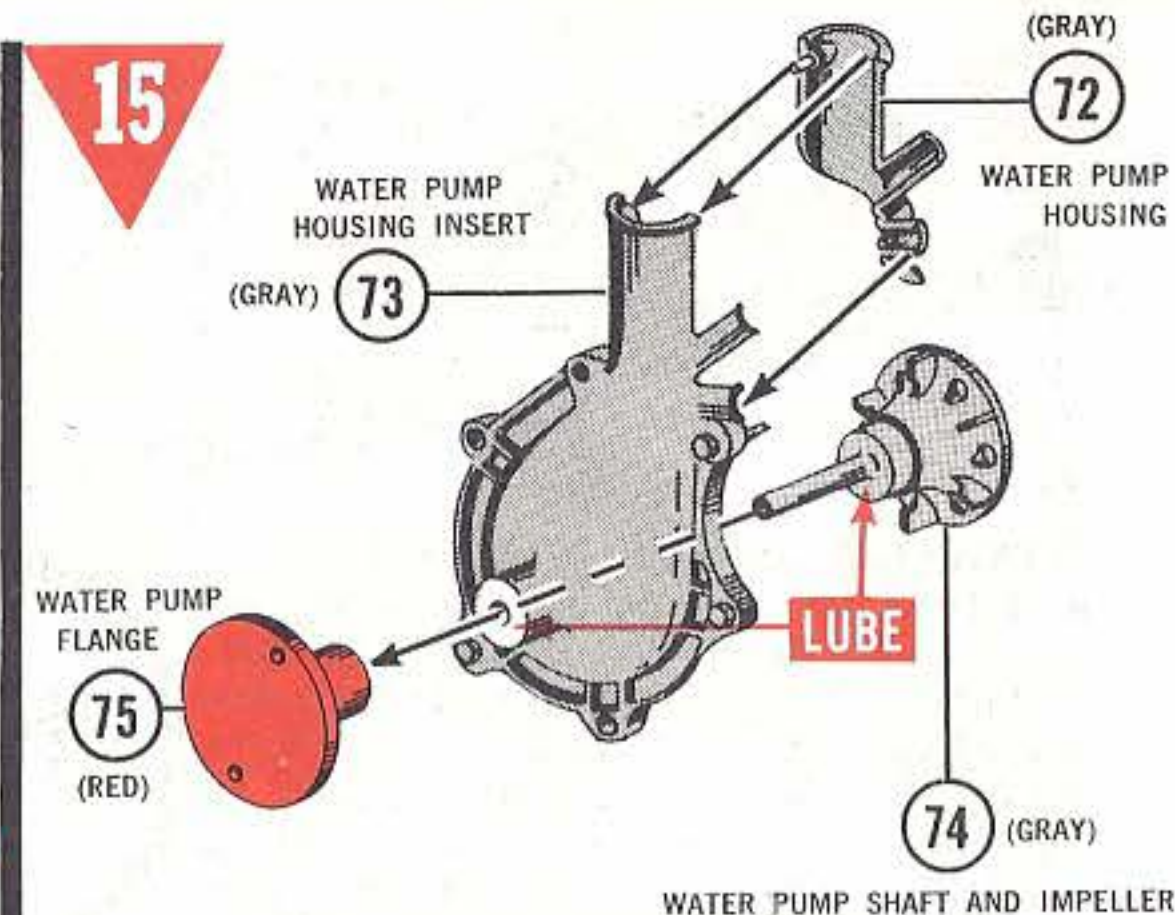
SEE DRAWING A. Cement Part 76 to Part 77, set aside to dry. SEE DRAWING B. Cement Part 78 into Part 79 then cement Part 80 to Part 78. Set aside to dry. SEE DRAWING C. INSERT, DO NOT CEMENT Long Pin on Assembly B into Part 81. Then press Part 82 onto Part 81. Hook Pins on Assembly A, into holes in Parts 81 and 82 then apply cement to Part 81 and 82 where they meet. Now cement Parts 83 and 84 together. Then cement this Assembly onto Long Pin on Assembly B, as shown. Set aside to dry.

14



Cement Part 66 and 67 together, then cement this assembly down onto Part 68. Next cement this assembly onto Assembly 13, as shown. Now, apply Decal to Part 69. NOTE: Decal is applied opposite small locator pin on Part 69. Cement Part 69 into Part 70. Next, cement Part 71 down onto Part 69. Finally, cement this assembly down onto Carburetor.

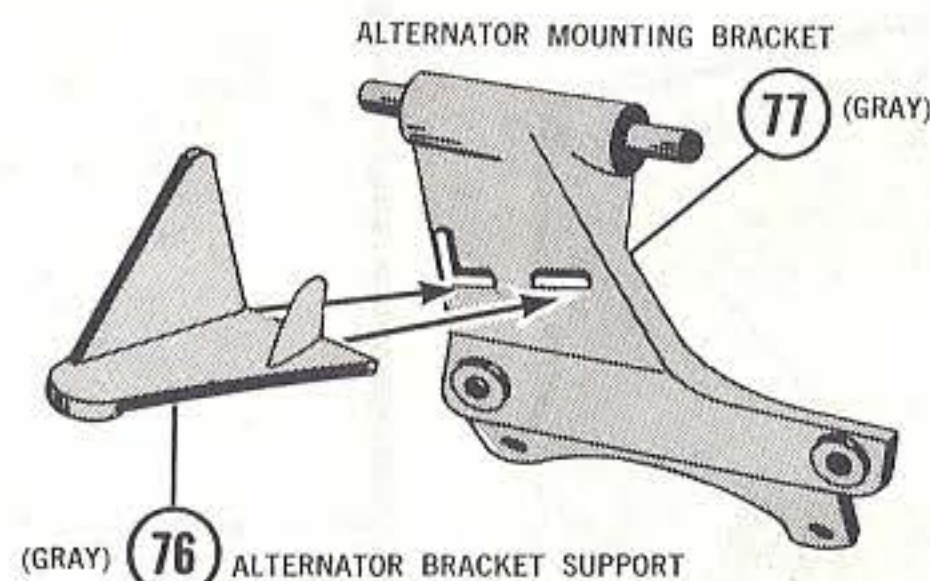
15



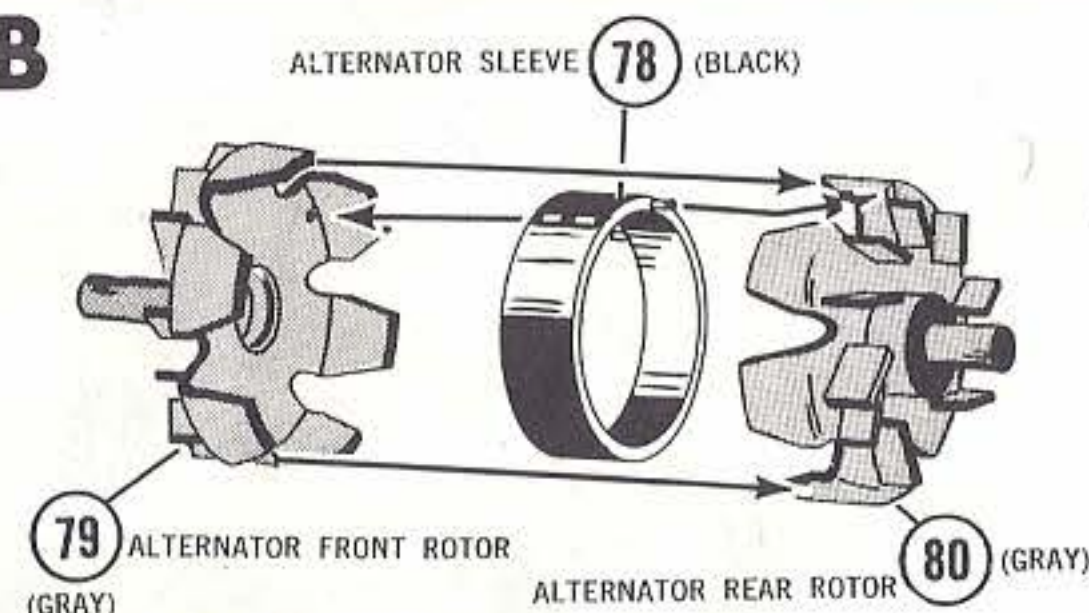
WATER PUMP ASSEMBLY

Cement Part 72 onto 73. INSERT, DO NOT CEMENT, Part 74, through Part 73, then put a drop of cement on the end of Part 74 and Press on Part 75. CAUTION: DO NOT LET CEMENT TOUCH PART 73 OR PARTS WILL NOT TURN. Set aside to dry.

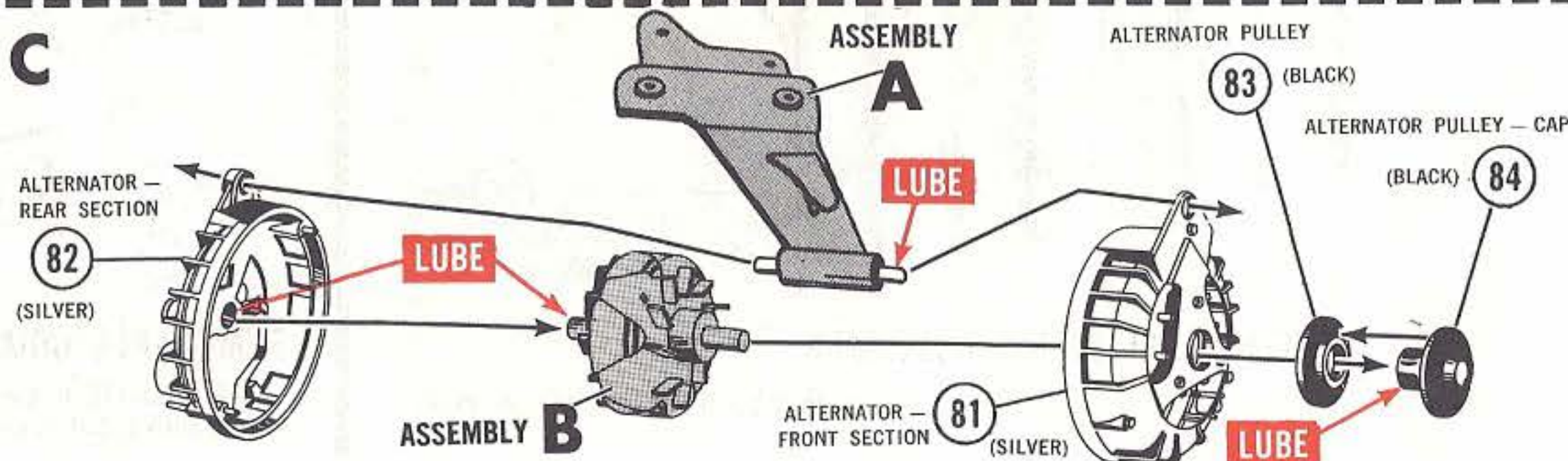
A



B



C



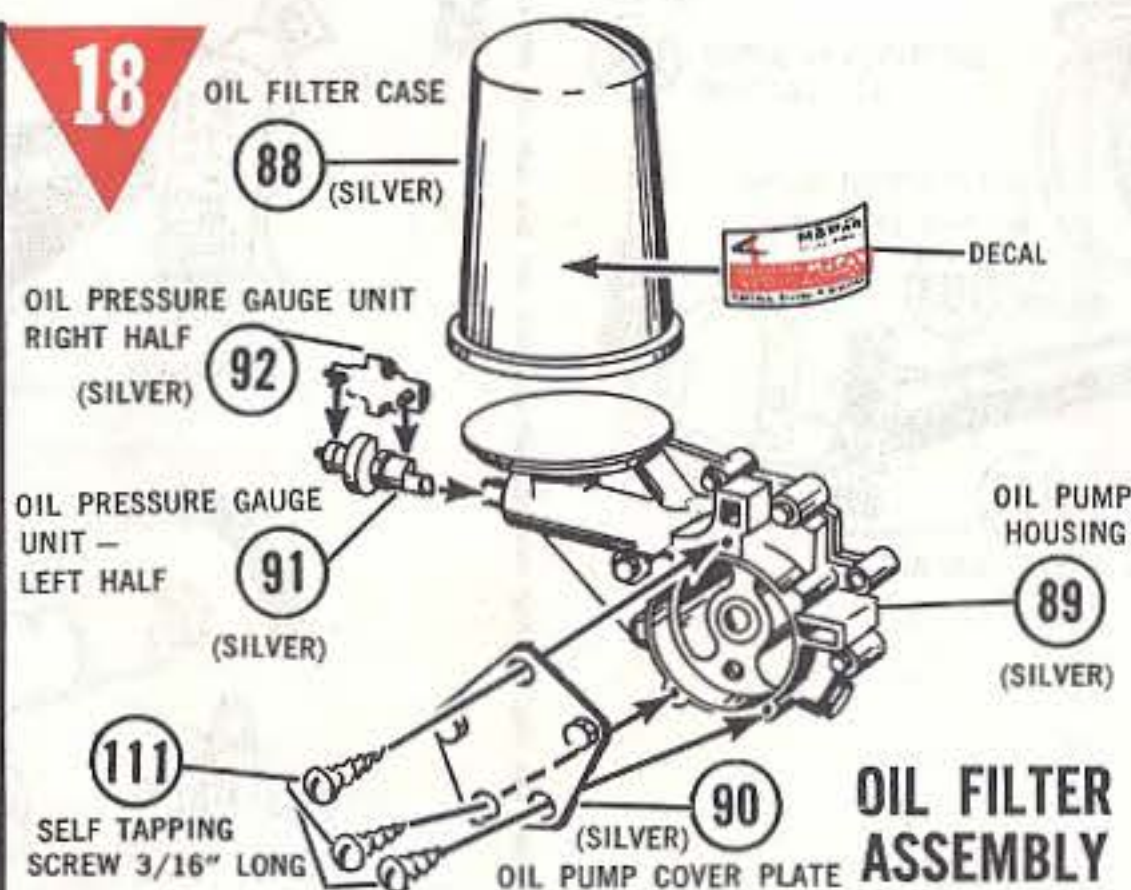
17



FUEL PUMP ASSEMBLY

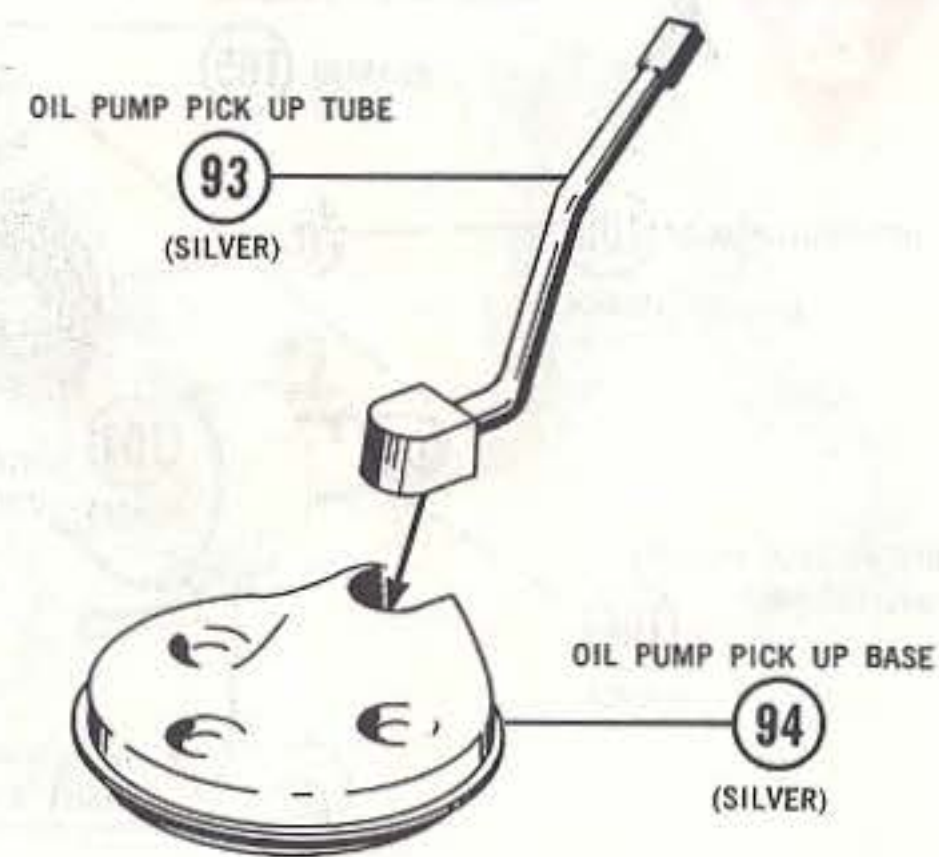
Cement Parts 85 and 86 together, then cement Part 87 onto Parts 85 and 86. See Small Drawing of completed assembly. Set aside to dry.

18



Cement Part 88 down onto Part 89. Next, attach Part 90 onto Part 89 with (3) Parts 111. Now, cement Parts 91 and 92 together, then cement this assembly to Part 89. Finally, apply Decal to Part 88, then set aside to dry.

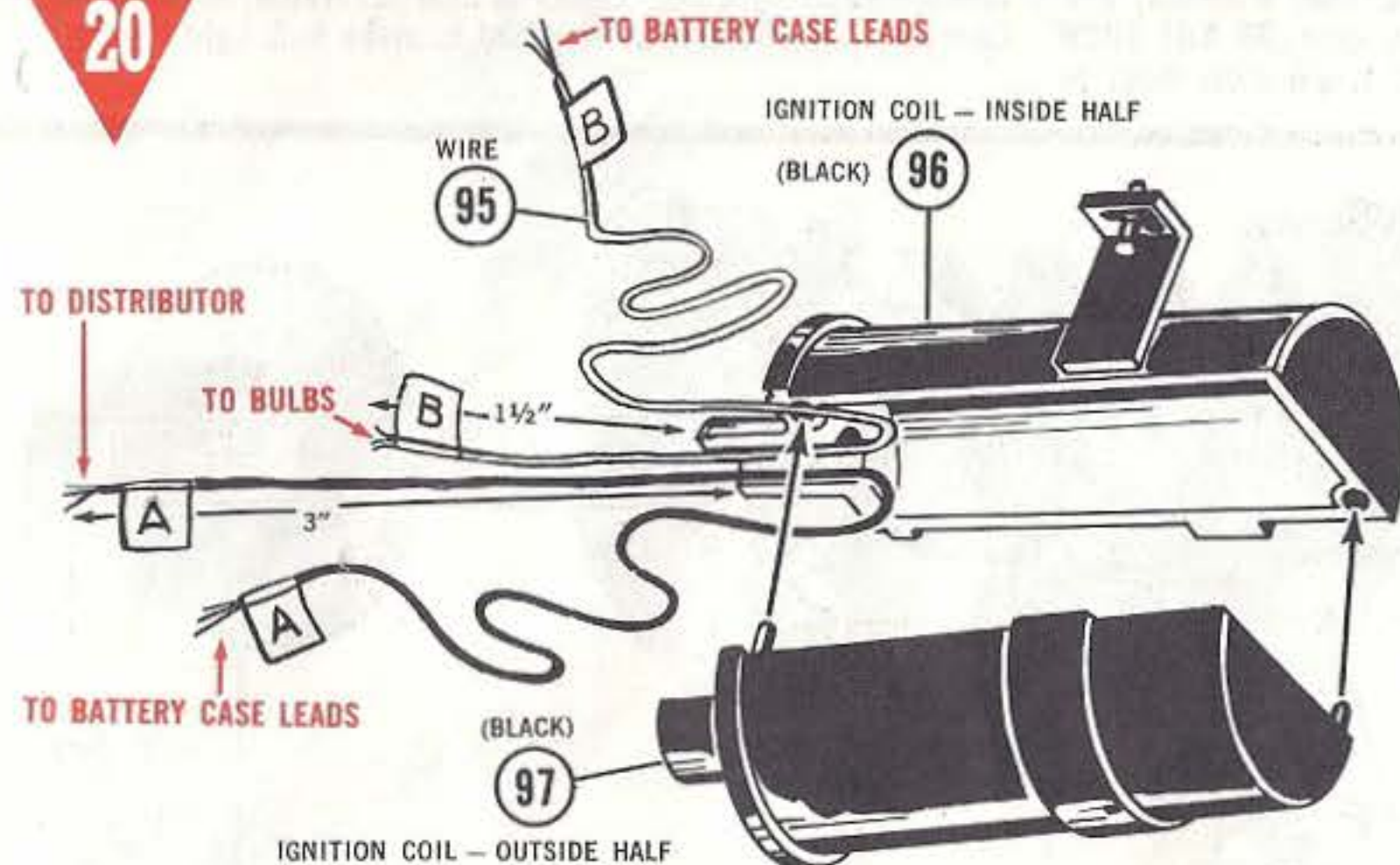
19



OIL PUMP ASSEMBLY

Cement Part 93 into Part 94, then set aside to dry.

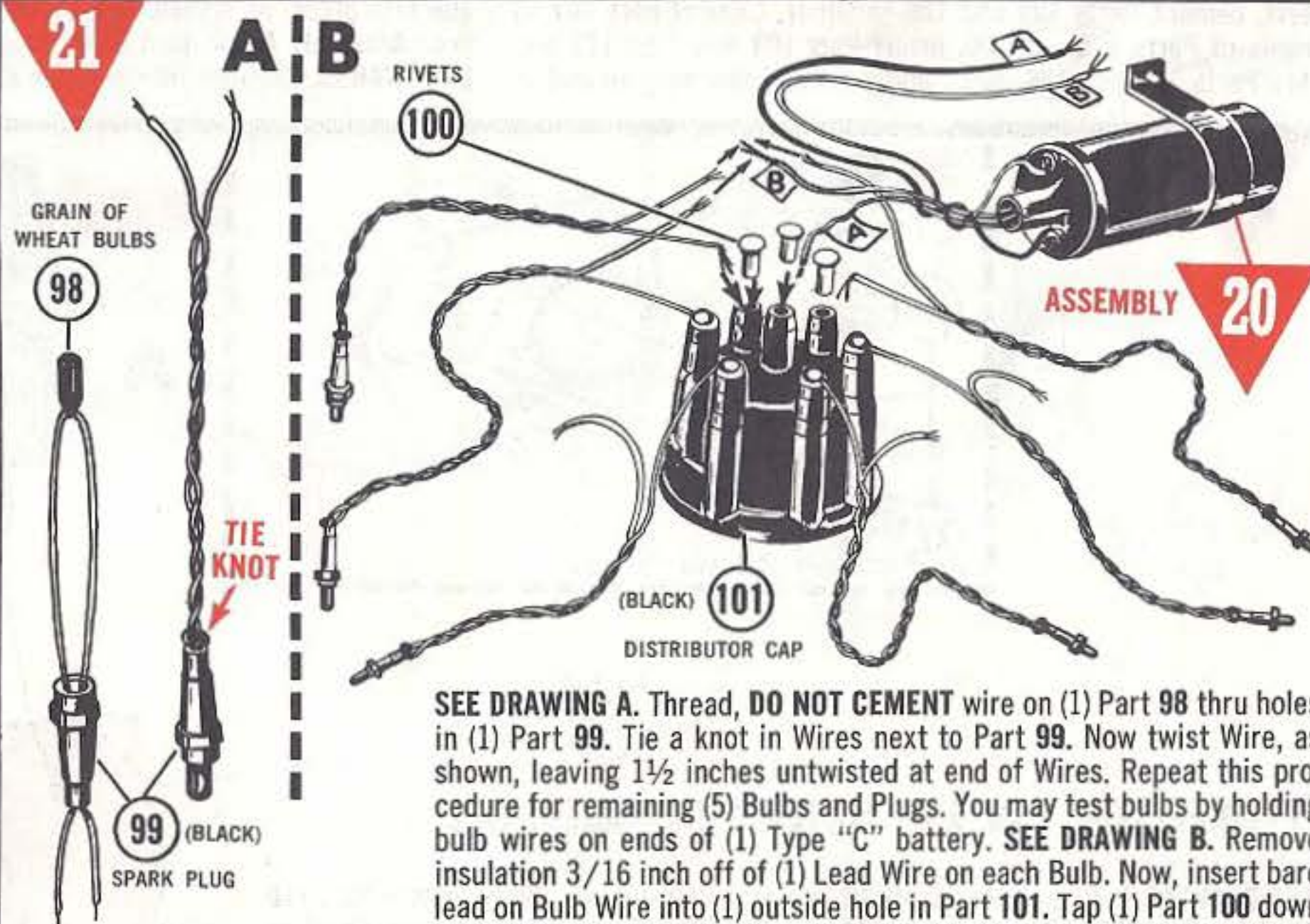
20



COIL ASSEMBLY

Cut (1) piece of Wire, (Part 95) 13" long. Remove insulation $\frac{1}{2}$ " on both ends of Wire. Use tape and tab both ends of Wire "A". Cut (1) piece of Wire $11\frac{1}{2}$ " long. Remove $\frac{1}{2}$ " of insulation from both ends. Use tape and tab both ends of this Wire "B". Next, insert "A" Wire into Part 96, leaving 3" sticking out top of Coil to fasten into center post on Distributor Cap. Loop Wire out of slot in Part 96, as shown. Follow same procedure to install "B" Wire to reach Bulb Wires, leaving $1\frac{1}{2}$ " sticking out top of Coil. Finally, hold Wires into position and cement Part 97 onto Part 96, trapping Wires. Clamp with a clothespin and set aside to dry.

21



SPARK PLUG-DISTRIBUTOR CAP ASSEMBLY

SEE DRAWING A. Thread, DO NOT CEMENT wire on (1) Part 98 thru holes in (1) Part 99. Tie a knot in Wires next to Part 99. Now twist Wire, as shown, leaving $1\frac{1}{2}$ inches untwisted at end of Wires. Repeat this procedure for remaining (5) Bulbs and Plugs. You may test bulbs by holding bulb wires on ends of (1) Type "C" battery. SEE DRAWING B. Remove insulation $\frac{3}{16}$ inch off of (1) Lead Wire on each Bulb. Now, insert bare lead on Bulb Wire into (1) outside hole in Part 101. Tap (1) Part 100 down tight into hole to trap Wire. Follow same procedure for remaining (5) Leads on Plugs. Next, attach shorter Wire tabbed "A" on Assembly 20 to center Hole in Distributor Cap. Finally, remove $\frac{1}{2}$ inch insulation from remaining Lead Wire on each Bulb and twist onto Shorter Wire tabbed "B" on Assembly 20, then set aside.

22

A

DISTRIBUTOR HOUSING — INSIDE HALF

(SILVER) 105

DISTRIBUTOR GEAR 108
(BLACK)DISTRIBUTOR HOUSING —
OUTSIDE HALF 106
(SILVER)DISTRIBUTOR
POINT PLATE 107
(BLACK)VACUUM ADVANCE
(SILVER) 109DISTRIBUTOR ROTOR
TOP SECTION 104
(BLACK)DISTRIBUTOR ROTOR
BOTTOM SECTION 103
(BLACK)

DISTRIBUTOR ROTOR CONTACT 102

LUBE

DISTRIBUTOR HOUSING- ROTOR ASSEMBLY

SEE DRAWING A. Place Part 102 onto Part 103, then cement Part 104 over Part 102 and onto Part 103. Set aside to dry thoroughly. Next, cement Parts 105 and 106 together. Cement Part 107 to inside of Parts 105 and 106. Insert Part 103 thru Part 107 and thru Parts 105 and 106. Next, apply cement sparingly to end of

Part 103, then press on Part 108. DO NOT LET CEMENT TOUCH DISTRIBUTOR HOUSING, or Part 103 will not turn. Cement Part 109 into place, as shown. SEE DRAWING B. Snap Assembly 21B onto Assembly A and turn Gear, as shown, only. DO NOT TURN BACKWARDS. Contact inside Rotor should touch each Rivet as

LOOSE WIRES ATTACH TO "B" WIRE ON COIL

A
ASSEMBLY

21 B

FINAL COIL AND DISTRIBUTOR ASSEMBLY

Gear is rotated. Use (1) Type C Battery and hold wires tabbed "A" and "B" to each end of Battery. Turn Gear on Assembly A to check if each Light Bulb Lights as Gear is rotated. Adjustment to Contact, Part 102 may be required to make Bulb light.

23

B

SELF TAPPING SCREW
1/2" LONG 169

27

SELF TAPPING SCREW 3/16" LONG

ASSEMBLY 15

OIL PAN

(RED) 110

FLYWHEEL-OIL PAN AND WATER PUMP ASSEMBLY

SEE DRAWING A. Cement Assembly 19 into Assembly 10B, as shown. Attach Part 110 to Assembly 10B with (4) Parts 111. Next, attach Part 112 onto Long Shaft of Assembly 10B with (2) Parts 27. Cement Part 113 onto Part 110 at location shown. SEE DRAWING B. Turn Assembly A, as shown and attach Assembly 15 onto Assembly A with (2) Part 27 and (1) Part 169.

A

ASSEMBLY 10 B

19

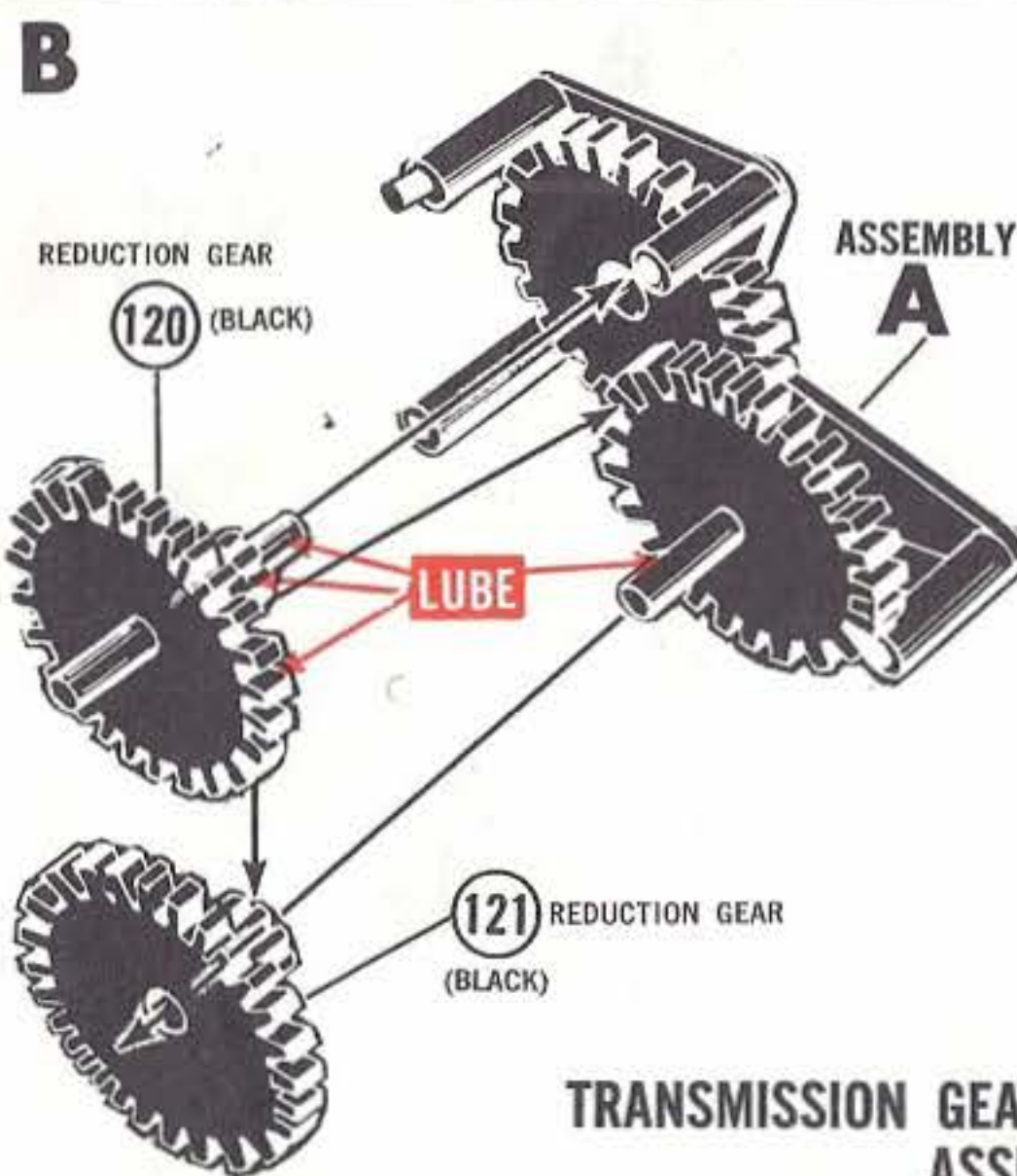
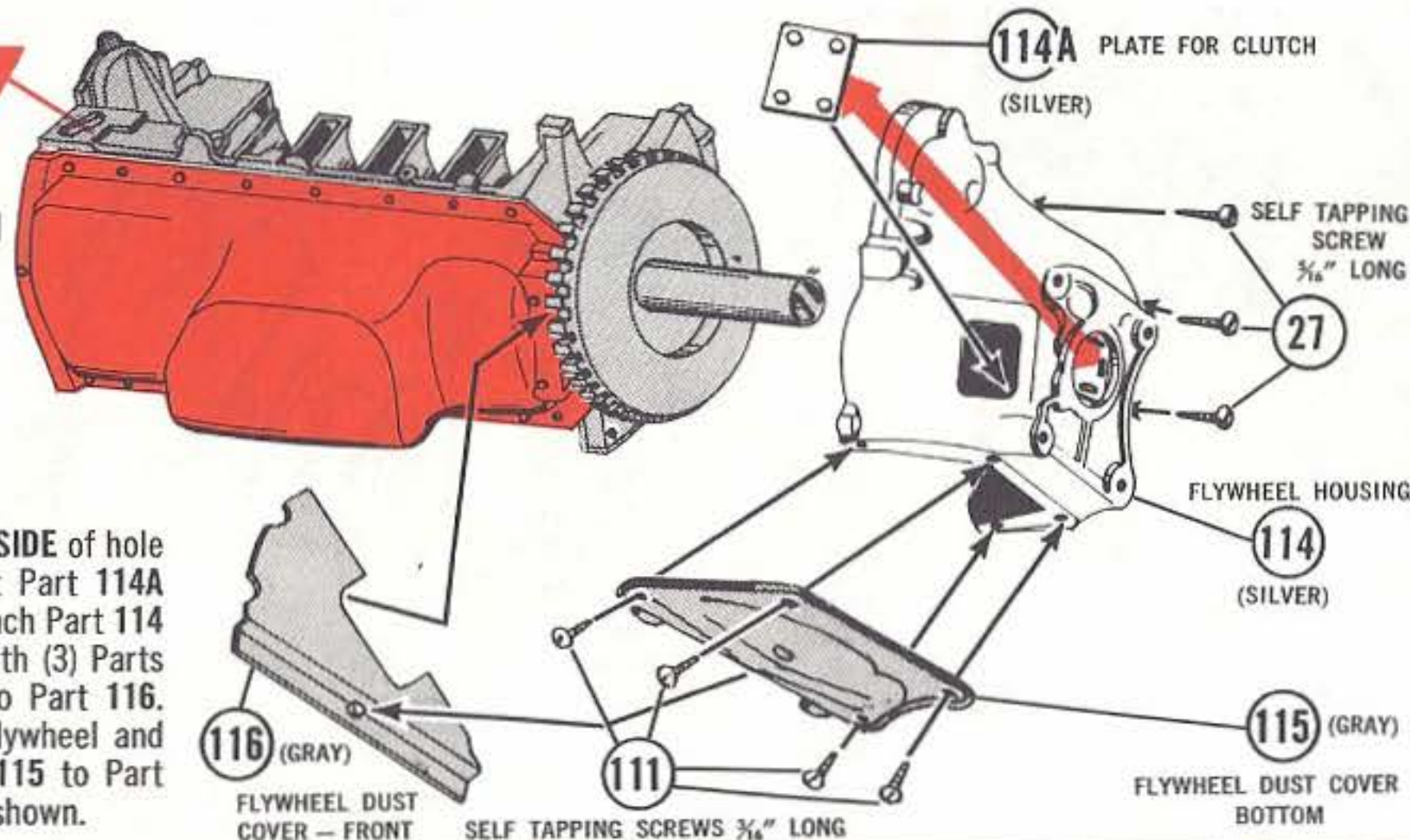
OIL PLUG FOR PAN 113 (RED)

112 FLYWHEEL
(GRAY)27
SELF TAPPING SCREW 5/16" LONG

111 SELF TAPPING SCREWS 3/16" LONG

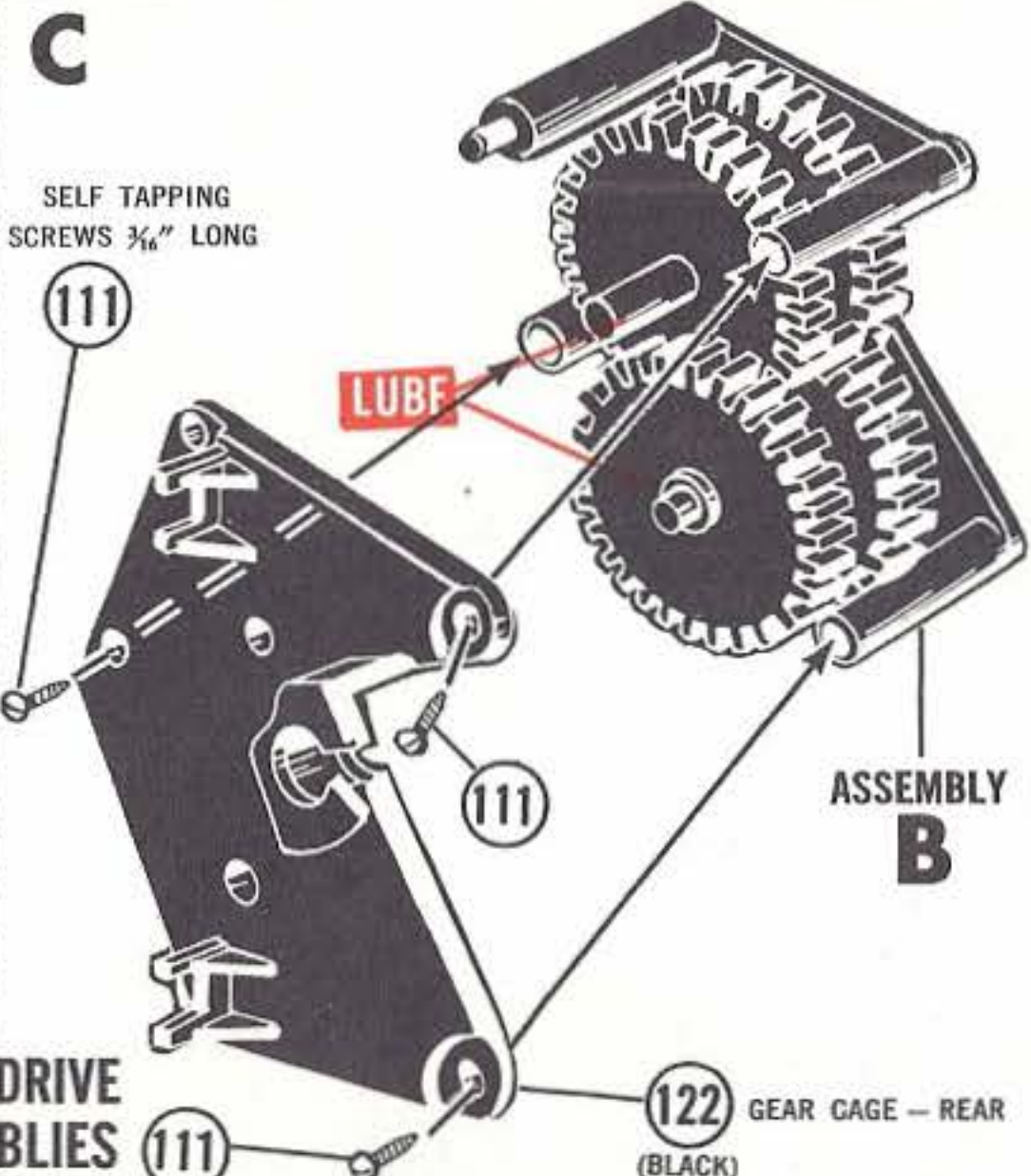
24 **23** **ASSEMBLY** **BELL HOUSING AND FLYWHEEL COVER ASSEMBLY**

Cut Part 114A from the **INSIDE** of hole in Part 114, then cement Part 114A onto side of 114. Next, attach Part 114 to rear of **Assembly 23** with (3) Parts 27. Cement Part 115 onto Part 116. Slide Part 116 between Flywheel and Oilpan, then attach Part 115 to Part 114 with (4) Parts 111, as shown.

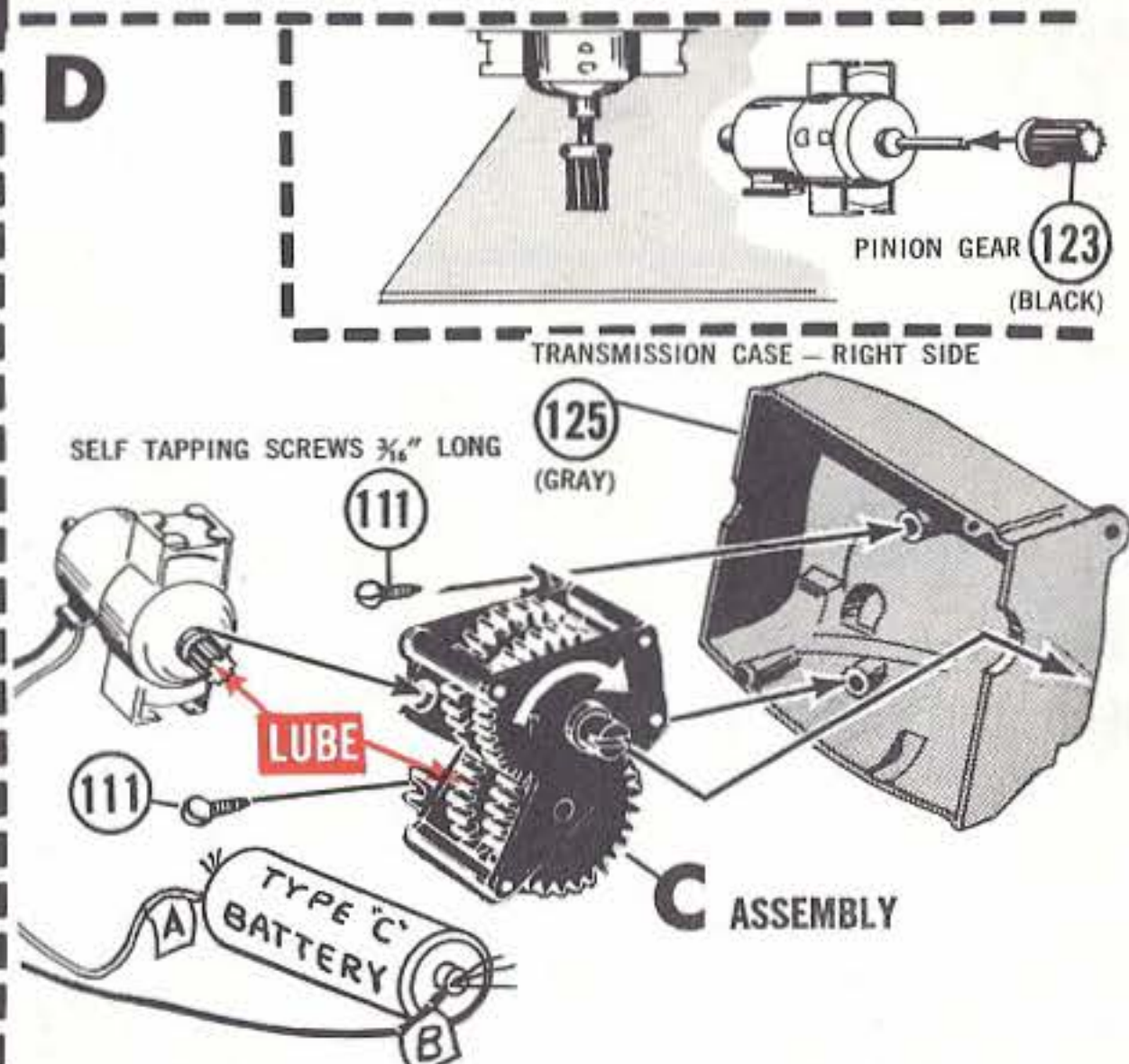
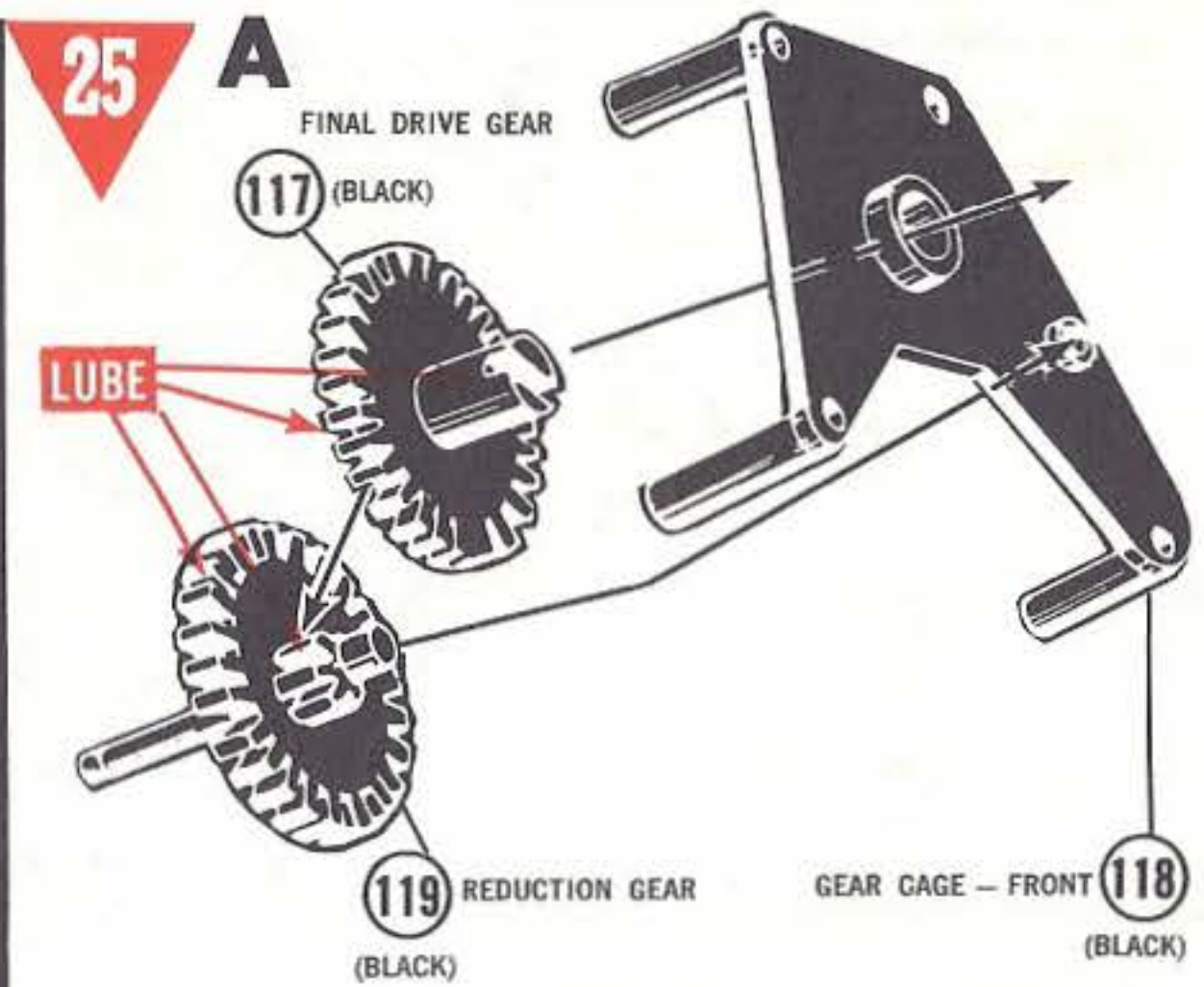


TRANSMISSION GEAR DRIVE ASSEMBLIES

SEE **DRAWING A. INSERT**, DO NOT CEMENT Part 117 into Part 118. **INSERT**, DO NOT CEMENT Part 119 into Part 118. Be sure Gears mesh properly. SEE **DRAWING B. INSERT**, DO NOT CEMENT Part 120 into Assembly A, as shown. Next, **INSERT**, DO NOT CEMENT Part 121 into place as



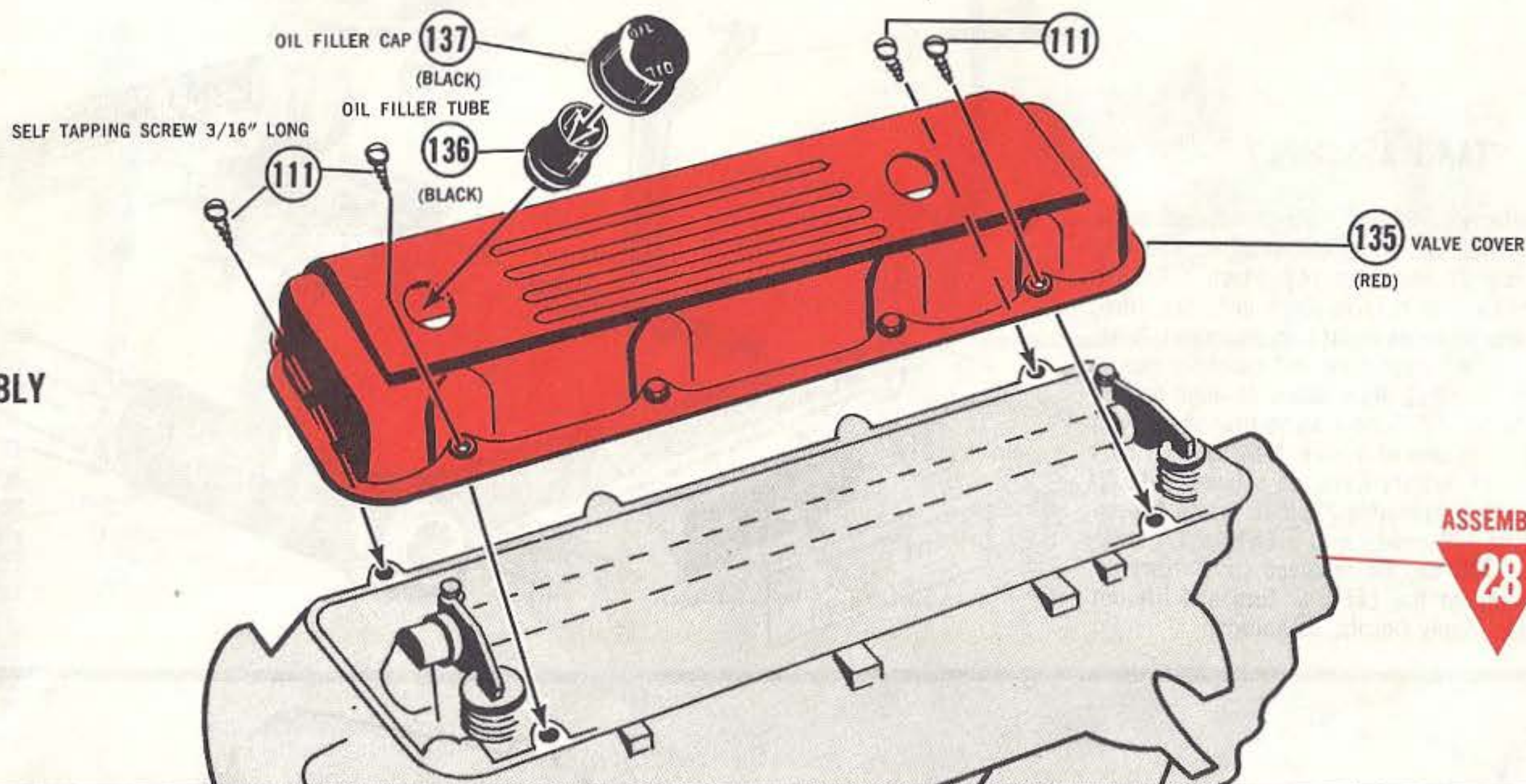
shown. Check all Gears to see that they mesh properly and turn freely. SEE **DRAWING C. PLACE**, DO NOT CEMENT Part 122 onto Assembly B and tighten into place with (3) Parts 111. SEE **DRAWING D. Press** Part 123 down onto Electric Motor Shaft. Press Part 123 down onto Table until



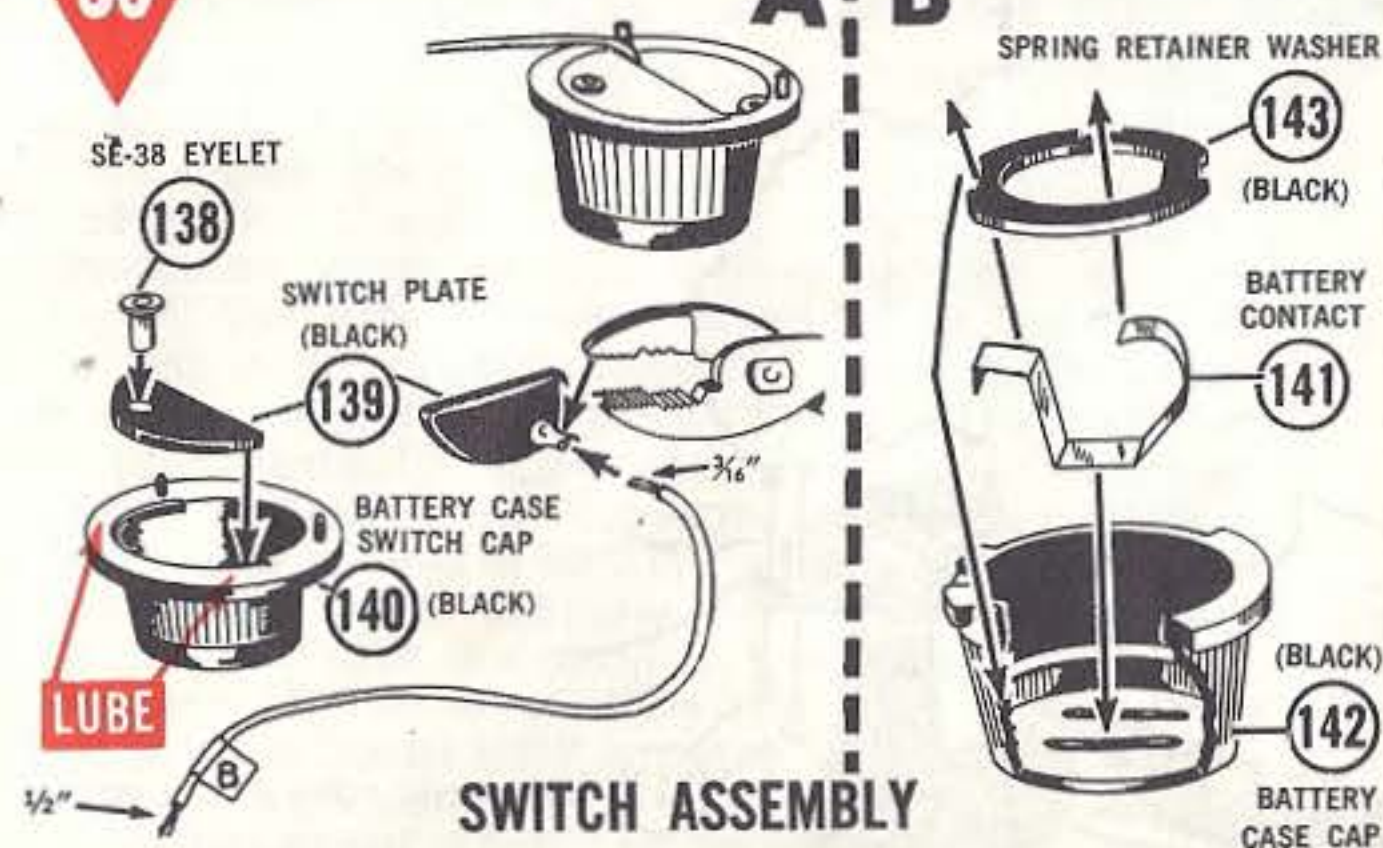
Electric Motor Shaft Bottoms in Gear, as shown in **SMALL DRAWING**. Attach Assembly C into Part 125 with (2) Parts 111, as shown. Now place Electric Motor into Assembly C, being careful that screws are not tight enough to cause Gears to bind Check Gearing Assembly by holding Motor Leads to (1) Type C Battery. Slotted shaft on Assembly C should turn, as shown. If shaft turns backwards, reverse Wires to Battery. Use Tape and tab Wire on top of Battery "B". Bottom Lead should be tabbed "A".

VALVE COVER ASSEMBLY

Attach Part 135 onto Assembly 28 with (4) Parts 111. Next, cement Part 136 into Part 135. Now **PRESS, DO NOT CEMENT**, Part 137 down onto Part 136, Part 137 is removable.



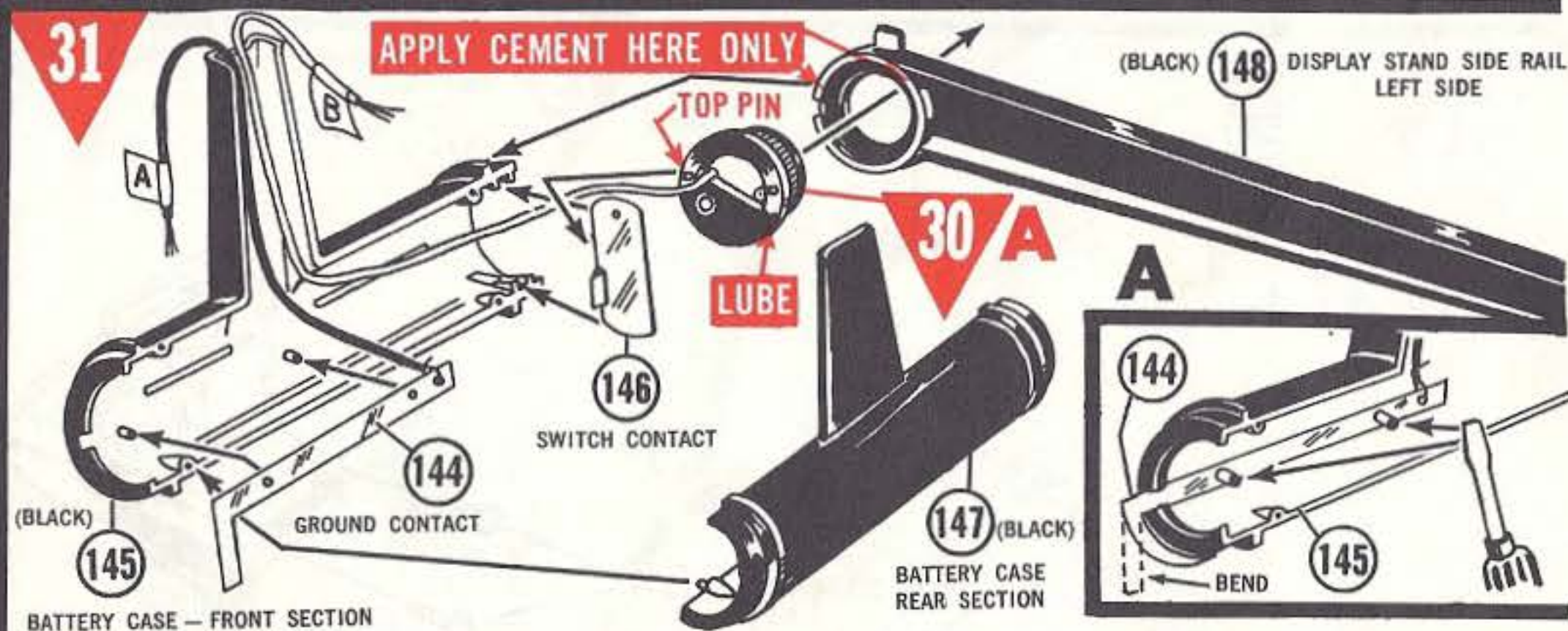
A B



SWITCH ASSEMBLY

SEE DRAWING A. Cut (1) piece of Wire $6\frac{1}{2}$ " and remove the insulation $\frac{1}{2}$ " from one end, $\frac{3}{16}$ " from the other end. Tab end with $\frac{1}{2}$ " of insulation removed with a "B". Now, place (1) Part 138 into hole in Part 139. Twist bare end of Wire "B", stripped $\frac{3}{16}$ ", and insert bare end into Part 138. Squeeze tight with pliers to hold Wire in place. Next, cement Part 139 into Part 140. Wire to inside, as shown. Be sure strands of Wire **DO NOT STICK OUT** of Rivet. Trim if necessary. SEE DRAWING B. Place Part 141 into Part 142. Now apply cement to Part 143 and press down into Part 142. Set aside to dry.

APPLY CEMENT HERE ONLY



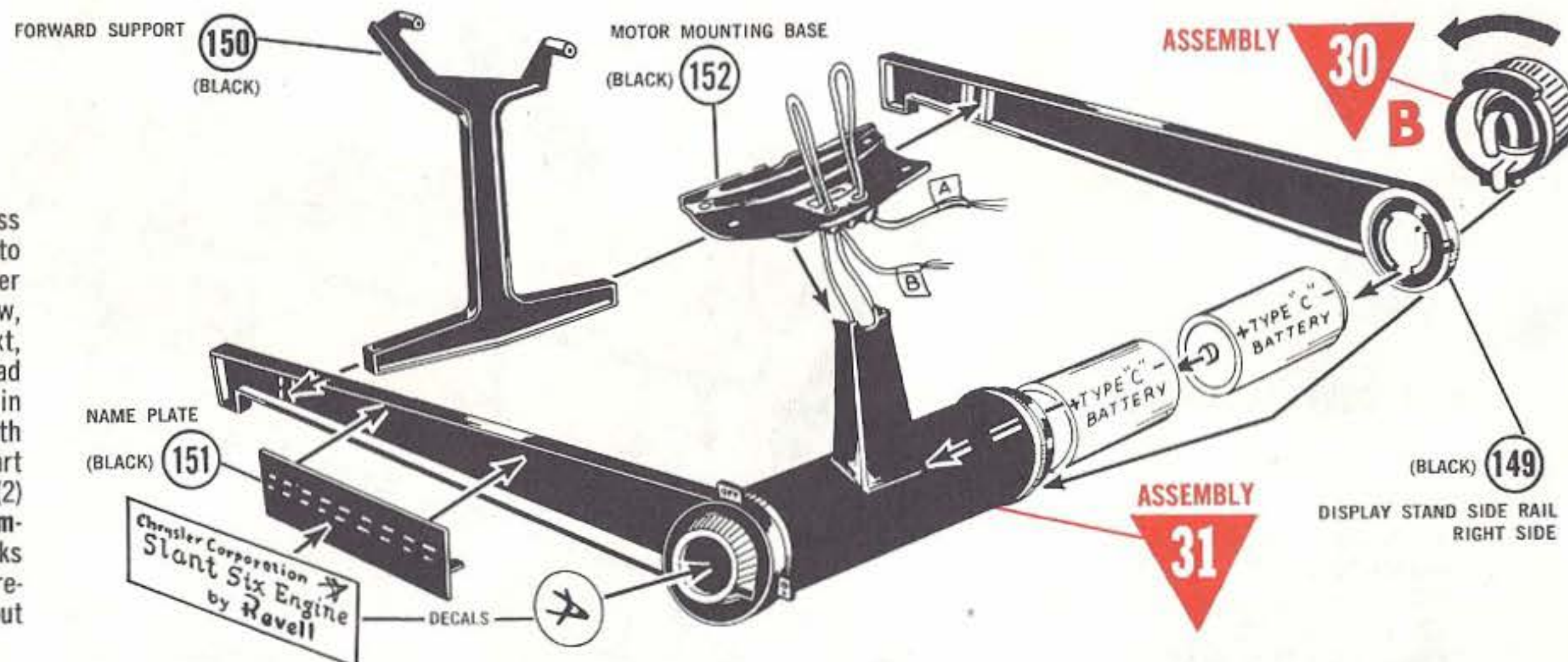
SWITCH AND BATTERY CASE ASSEMBLY

Strip insulation $\frac{1}{2}$ inch from both ends of remaining piece of Wire. Tab one end with Tape and mark it "A". Now, insert other end through hole in Part 144 and twist Wire tightly around Part 144. Next, press Part 144 onto pins in Part 145. SEE DRAWING A. Use a Heated Screwdriver and press against pins to rivet Part 144 into place. Bend "L" shaped Contact to match shape of Part 145, as shown. Place tabbed end of Wire in Part 145, as shown. Next, slide Part 146 into grooves in Part 145. Now, place Wire tabbed "B" on Assembly 30A into Part 145, then apply cement to edges of Part 147 and press onto Part 145. Be sure Part 146 locates in grooves in Part 147. Next, apply lube and hold Assembly 30A to end of assembled 145 and 147 in position shown, with top pin between Part 145 and 146. Apply cement sparingly to flange area shown and press Part 148 over Assembly 30A, then onto assembled 145 and 147. Assembly 30A is the switch and must turn freely.

32

STAND ASSEMBLY

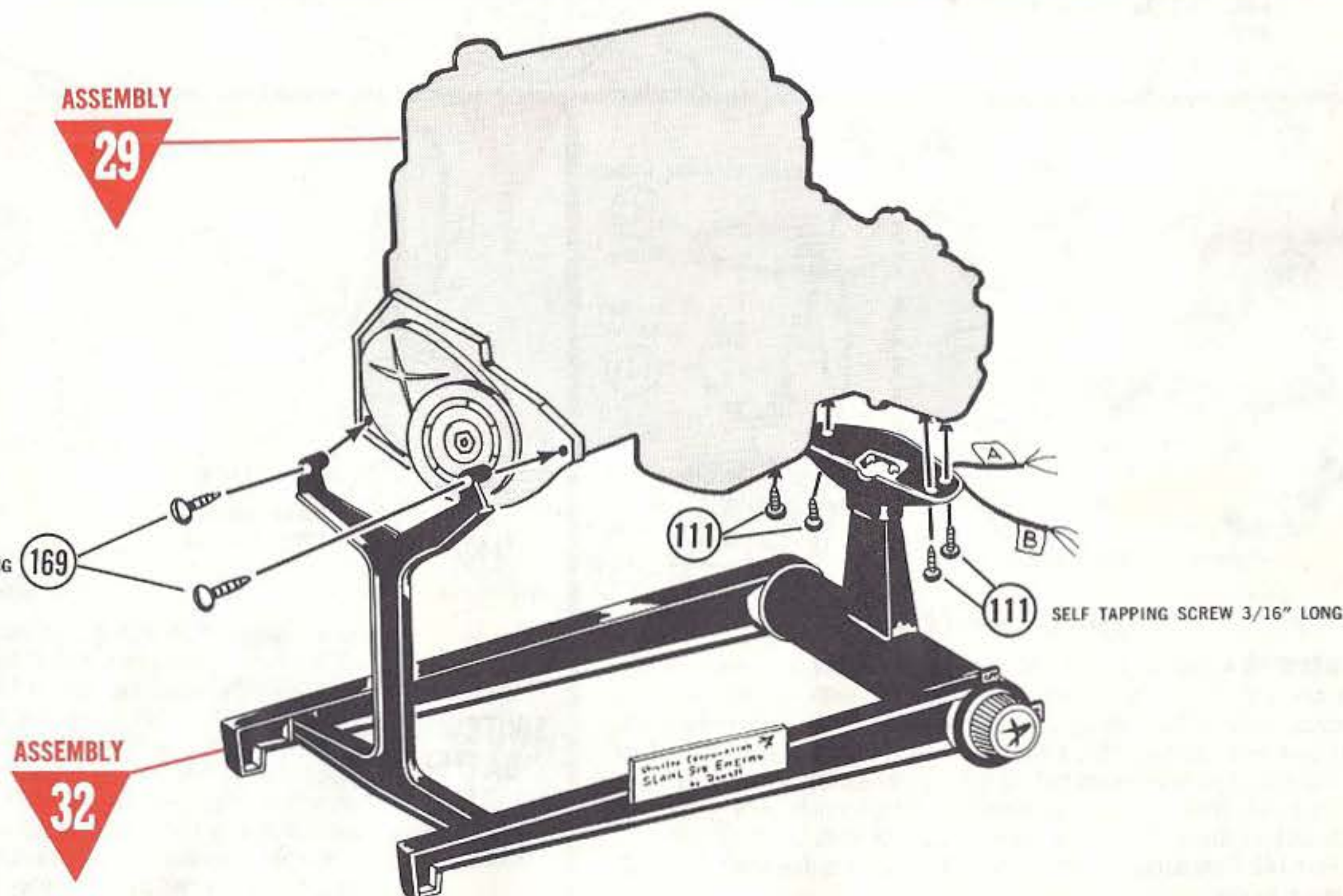
Apply cement sparingly to Flange Area shown and press Part 149 onto Assembly 31. Next, cement Part 150 into grooves of Assembly 31 and Part 149. Place a Rubber Band over ends of Legs to hold in place until dry. Now, cement Part 151 into place on Front Leg, as shown. Next, remove Tape tabbed "A" from Wire and carefully thread up through slot in Part 152 then down through hole in Part 152. Re-tab Wire "A". Follow same procedure with "B" Wire. Thread Wires one at a time. Now, cement Part 152 down onto top of Battery Case, as shown. Slide (2) Type "C" Batteries into Assembly 31, then locate Assembly 30B through Part 149 and turn to **RIGHT** until it locks in place. Assembly 30B can be removed for Battery replacement by turning to the **LEFT** ¼ turn and lift out Batteries from case. Apply Decals, as shown.



33

MOTOR AND STAND ASSEMBLY

Place Assembly 29 onto Assembly 32 and attach to front with (2) Parts 169 and to rear with (4) Parts 111.



34

FAN-STARTER AND TRANSMISSION ASSEMBLY

Attach Part 153 to Assembly 33 with (2) Parts 111. Next cement Parts 154 and 154A together as shown. Attach Parts 154 and 155 onto Assembly 33 with (2) Parts 27. **PLACE, DO NOT CEMENT** Part 156 into Assembly 33. **SEE DRAWING A.** Cement Parts 157 and 158 together. Next, cement Part 159 onto 157 and 158, then attach to Assembly 33 with (1) Part 111. **CAUTION: DO NOT RUN SCREW IN TIGHT AS THIS PART MUST SWING OUT ON SCREW.** Finally, attach Assembly 26 to Assembly 33 with (4) Parts 27. **CAUTION: BE SURE DRIVE SHAFT IN REAR OF MOTOR IS ALIGNED TO RECEIVE "KEY" DRIVE IN ASSEMBLY 26.**

SELF TAPPING
SCREW 5/16" LONG

WATER PUMP PULLEY

WATER PUMP PULLEY-FLANGE

(SILVER) 154

(SILVER) 154A

FAN

155

(BLACK)

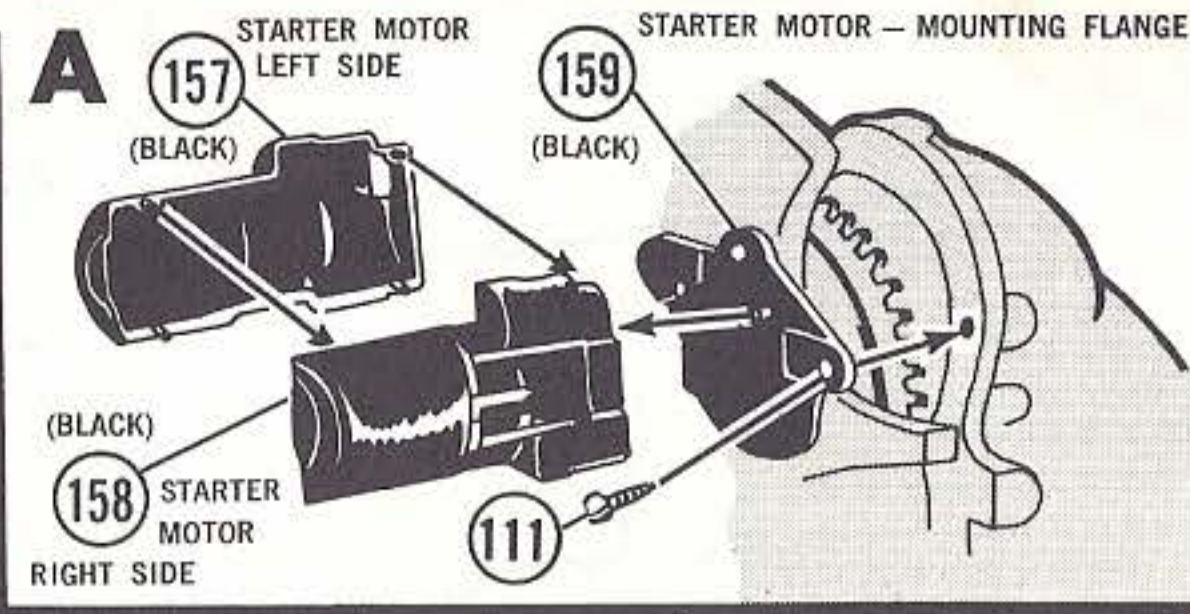
DIP STICK TUBE

156

(RED)

SELF TAPPING SCREW 3/16" LONG

(RED) 153 BELL HOUSING LEFT SIDE BRACE



"KEY" DRIVE

ASSEMBLY
26

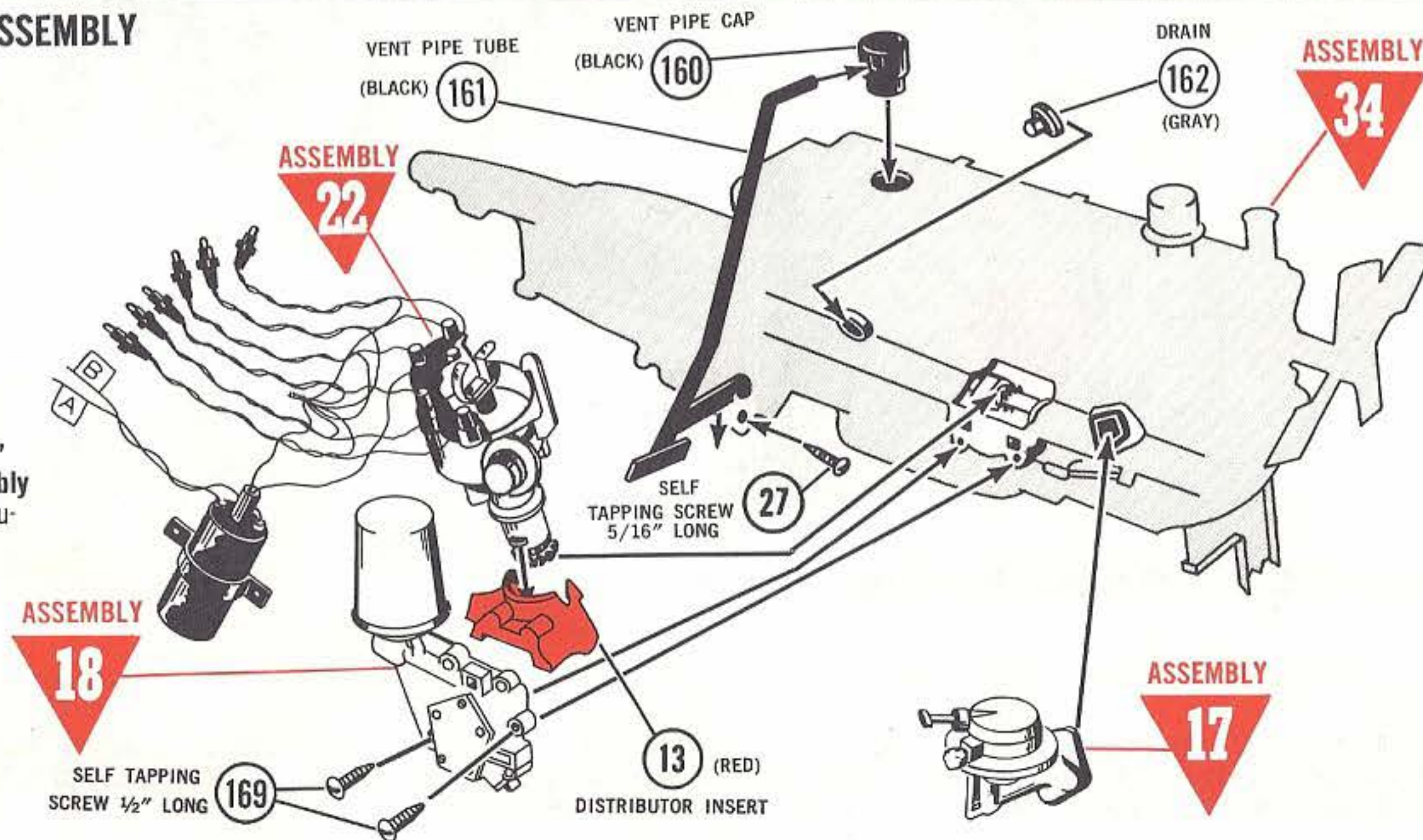
35

DISTRIBUTOR-FUEL PUMP AND OIL PUMP ASSEMBLY

Cement Assembly 17 onto Assembly 34. Follow this next step carefully. Place Assembly 22 into Part 13, then place Geared end of Assembly 22 into side of Block. Now attach Assembly 18 onto Block with (2) Parts 169 trapping Part 13 and Assembly 22. Tighten Screws snug. The following steps will describe the method of timing the Engine. Twist Wires tabbed "A" from Motor in Transmission and Battery Case together. Follow same procedure on Wires Tabbed "B". Remove Distributor Cap. Turn Switch on front of Battery Case to "ON" position and check that Rotor turns properly. Turn Engine around. Engine will be timed from No. 2 Cylinder, the second Cylinder from the Fan. Run Engine until both Intake and Exhaust Valves in No. 2 Cylinder remain closed during all the upward movement of No. 2 Piston, then "STOP" Engine when Piston is at top of Cylinder. Now twist Wires from Coil tabbed "A" and "B" to Wires tabbed "A" and "B" on Battery Case. Loosen Screws on Assembly 18 and turn Rotor Contact until it is pointing UP. Now replace Distributor Cap with No. 2 pointing UP.

NOTE: Numbers marked on Distributor Cap correspond with number of Cylinders. Turn Switch "ON". At this point No. 2 Plug should light. If No. 2 plug does not light rotate entire Distributor until No. 2 plug does light, then tighten Screws in Assembly 18. Turn Engine "OFF".

To Assemble your Engine with the conventional Crankcase Vent System **PLACE, DO NOT CEMENT** Part 160 into top of Assembly 34. Now attach Part 161 to end of Bell Housing with (1) Part 27. **DO NOT RUN SCREW UP TIGHT,** Part 161 must be removable. Cement top end of Part 161 into recess provided in Part 160. Finally, Cement Part 162 into hole in Assembly 34, as shown.

ASSEMBLY
22ASSEMBLY
34ASSEMBLY
18ASSEMBLY
17SELF TAPPING
SCREW 1/2" LONG

169

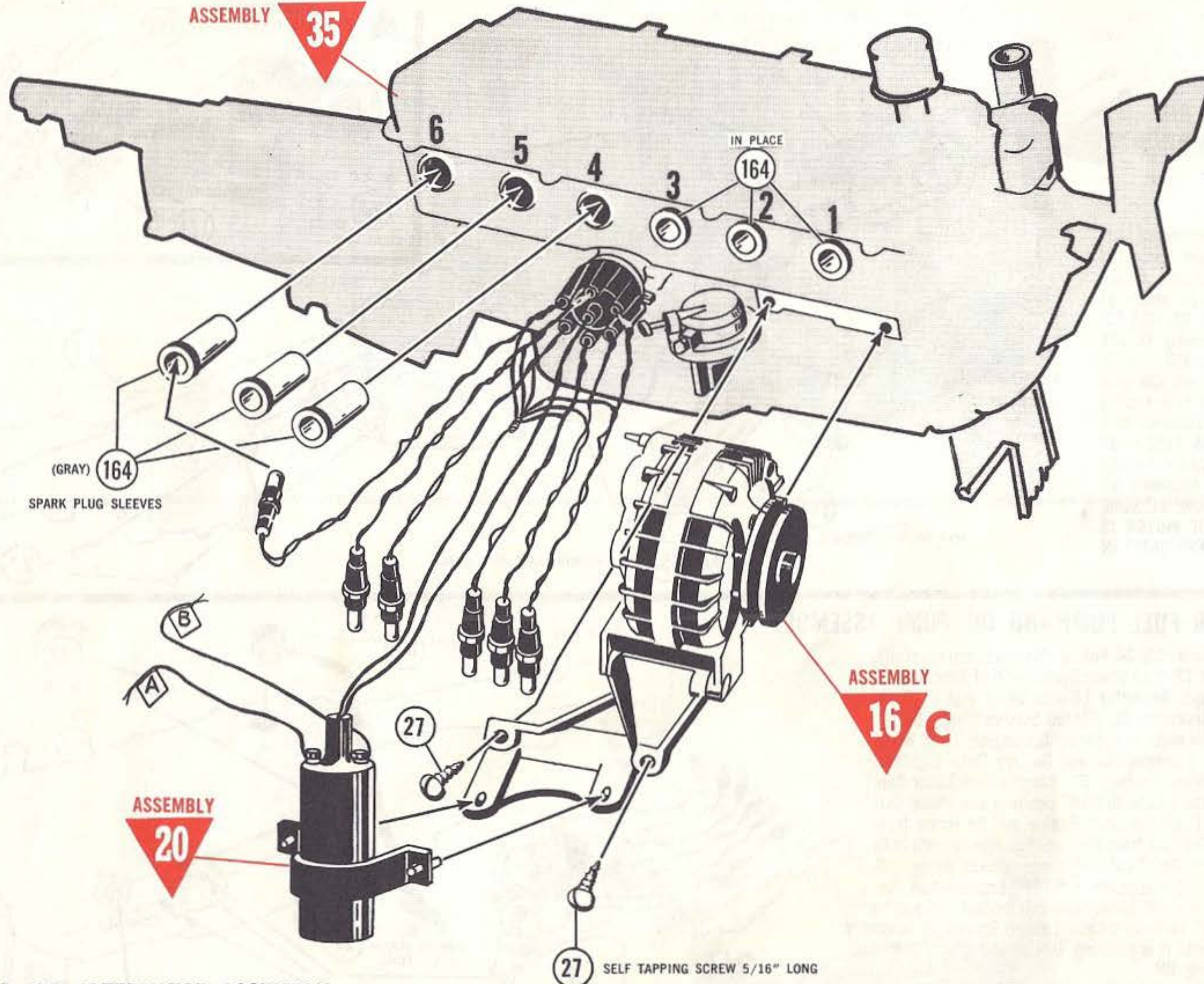
DISTRIBUTOR INSERT

13 (RED)

36

ASSEMBLY

35



(GRAY) 164
SPARK PLUG SLEEVES

ASSEMBLY

16 C

ASSEMBLY

20

27

SELF TAPPING SCREW 5/16" LONG

SPARK PLUG AND ALTERNATOR ASSEMBLY

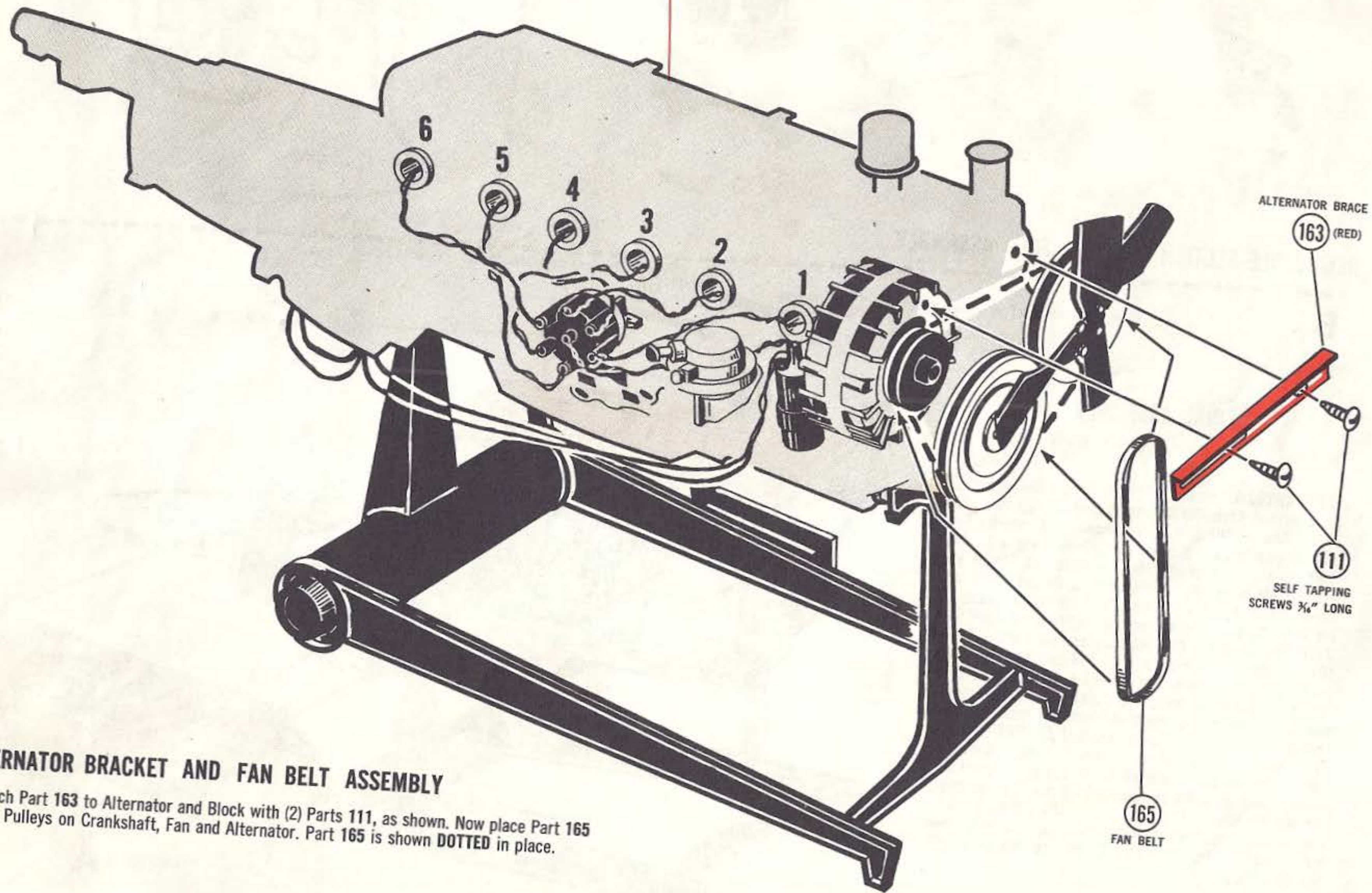
Attach **Assembly 16C** to **Assembly 35** with (2) Parts 27. Now, cement (6) Parts 164 into Head, as shown. Make sure Parts 164 line up with holes in Combustion Chamber. **PRESS, DO NOT CEMENT** each Spark Plug into Parts 164 until they shoulder. **Number 1** Lead Wire on Dis-

tributor Cap is pressed into Front cylinder. Follow same procedure for remaining (5) Plugs. Finally cement **Assembly 20** to Alternator Bracket.

37

ASSEMBLY

36

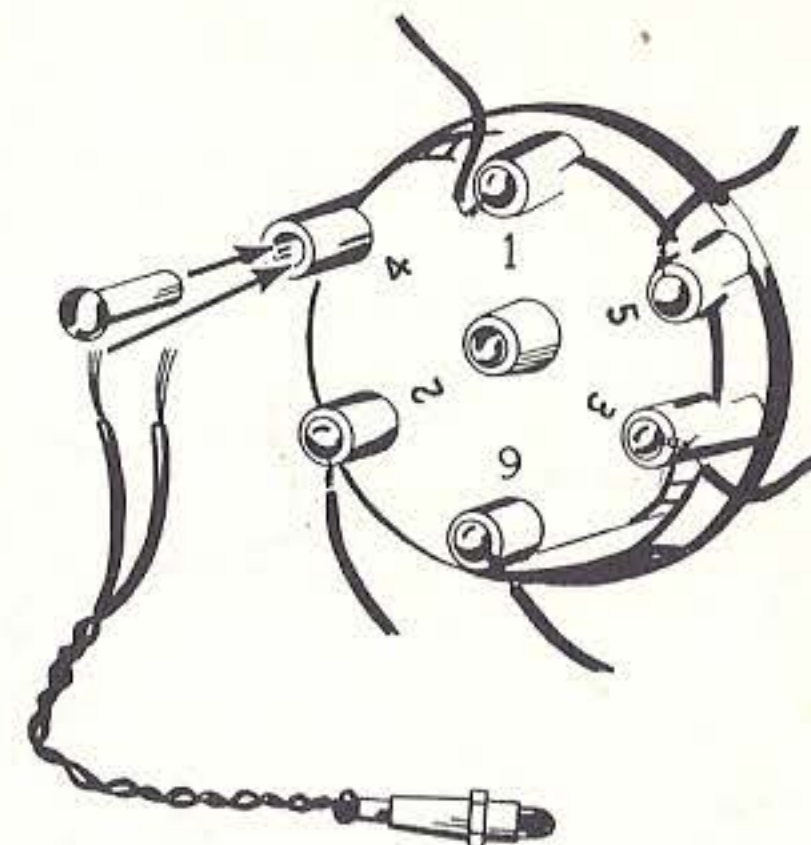


ALTERNATOR BRACKET AND FAN BELT ASSEMBLY

Attach Part 163 to Alternator and Block with (2) Parts 111, as shown. Now place Part 165 over Pulleys on Crankshaft, Fan and Alternator. Part 165 is shown DOTTED in place.



REMOVABLE SECTION AND MANIFOLD ASSEMBLY



B

FUME AFTERBURNING TUBE — CARBURETOR SIDE (166) (BLACK) FUME AFTERBURNING TUBE — ENGINE SIDE (167) (BLACK)

FINAL ASSEMBLY

SEE DRAWING A. Cement Assembly 11 onto Assembly 12B. Now, cement Assembly 14 onto Assembly 12B. Set aside to dry. SEE DRAWING B. Press Assembly A into the Left Side of your Engine. This assembly is removable to view the internal parts of your Engine while running. If you wish to assemble your Engine with a Closed Crankcase Vent System, which is an Anti-Smog Device, required by law in California, first remove the Vent Pipe Tube and Cap (Parts 160 and 161 in Step 35) then, cement Parts 166 and 167 together. Next, cement Part 168 into hole in Valve-case Cover, then cement Part 167 onto 168. **CAUTION:** before cement dries, press removable section into Engine, then swing assembled Parts 166 and 167 until Part 166 touches at hole in Carburetor. **DO NOT CEMENT** Part 166 to Carburetor or you will not be able to remove the Manifold Assembly. SEE DRAWING C. To replace burned out bulbs in your Spark Plugs, remove Plug from Engine. Next, remove Distributor Cap and press out the Rivet holding wire inside Cap. Remove Wire from Cap. Untwist other Bulb Lead Wire from the Coil. To re-assemble new Bulb See Step 21A and B.

